DraWing

Architectural Design Competition 2013

Marshall

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Contents

Foreword 1

Wing Vision & Philosophy 2

Judges 4

Public Art Steering Group 6

Character and Layout 7

The Competition Concept & Format 8

The DraWing Competition Brief 9

Competition entries 10

- Large Detached House (Entries 01 - 10) 10
- Large Semi-Detached House (Entries 11 - 18) 32
- Semi Detached House (Entries 19 - 30) 50
- Town House (Entries 31 - 45) 76
- Mews House, 3 Bedrooms (Entries 46 - 53) 108
- Mews House, 2 Bedrooms (Entries 54 - 62) 126

DraWing Winners 146

Next Steps 150

Finishing Words 151

Appendix - List of Competitors 152

Foreword

Robert Marshall & Professor Marcial Echenique

Robert Marshall
Marshall Group Chief Executive

Wing is a unique development and a new community on our land. The future residents will become our neighbours for decades to come.

We want to be as proud of Wing in 50 year's time as we will be on day one, which is why the original masterplan and the design of the properties on Wing are so important to us.

Through DraWing we will ensure that the high quality we are looking for is included from the beginning. The initial, open design competition which we ran last autumn drew a fantastic response and the 62 entrants demonstrated the level of original thought which had gone into the designs.

I am confident that many of the features of those early concepts will carry forward into the next stage of the design process.

Throughout the development of Wing we are committed to engaging deeply with the local community and the many stakeholders who share our interest in the final results.

There is so much architectural talent on our doorstep and together we will make Wing a great place to live and work.

The entries were of a very high standard and the panel had a preference for designs which were realistic but also of the upmost quality of design.

It has been extremely rewarding being Chairman of the judging panel for the DraWing competition. The competition entriesshowcased the wealth of architectural talent on offer.

Of particular note were the entries submitted by Sarah Wigglesworth Architects which received gold awards in two categories, detached house and town house, which demonstrated how to integrate contemporary design within the distinctive Cambridge heritage, while the latter is a brilliant solution for a courtyard town house.

In terms of urban design, Feilden & Mawson's large semi-detached house was noteworthy for the entry tower framing its urban square, which complimented the ample and interesting interior spaces.

Winning entries in the two mews house variations, by Metro Studio UK and Tom Reynolds of PTEa, illustrated excellent designs for compact development. PTEa also won the smaller semi-detached category, for Richard Carter's ingenious reinterpretation of the traditional semi.

Hopefully, the awarded designs will be translated into real buildings, thus making a great contribution to Cambridge's heritage and progressing the work initiated in Cambridge Futures, over a decade ago.

Professor Marcial Echenique
Urban Planning Expert

Wing Vision & Philosophy

Marshall remains a family business, but now operates worldwide in the fields of aerospace, military land systems, fleet management and automotive sales with an annual turnover in excess of £1 billion a year. The Company has a history of providing employment giving back to the community within the city – and is therefore delighted to be contributing to Cambridge through the creation of a new urban village which will provide both housing and employment.

For both the Marshall family and company Wing will be a very personal project. How it looks, how it feels to walk through, how people live and work there is extremely important.

In December 2013 the outline planning application for Wing, consisting 1,300 homes and associated development, was submitted to the local authority. Although not a requirement until the later stages of planning, the need to approach the design of the homes on Wing was highlighted as being a crucial next step.

DraWing was conceived in response to the time consuming and sometimes laborious process used to select architects. The intention was to identify emerging talent and ideas, for integration into the Masterplan, from both professionals and students. Simplifying the entry requirement to just two A3 boards removed the barriers to entry for those without the professional resources to traditionally succeed. Additionally, judging anonymously resulted in the winners in each of the six house types being selected on the merit of their ideas, not reputation.

The architectural fabric of Cambridge and any other settlement reflects an eclectic combination of styling and design transcending decades. We understand that no village or town was created from the same static blueprint and that a place must incorporate multiple influences and design approaches if it is to form distinct character. Wing is a long term project spanning over a decade during which trends and technology will progress.

Therefore we intend on running the competition bi-ennially to ensure that we continue to challenge the look of the development and incorporate new ideas or trends.

UPHOLDING THE HIGHEST STANDARDS OF INTEGRITY AND FAIRNESS PUTTING OUR CUSTOMERS ABOVE ALL ELSE RECOGNISING THAT PEOPLE ARE AT THE HEART OF OUR SUCCESS MAINTAINING COMPETITIVE EDGE THROUGH INNOVATION AND CREATIVITY

We also intend to maintain ownership of the community and open spaces as opposed to an organisation with no long term interest in the site, broadening our significant role in the existing community.

All homes on Wing will be built to London Space Standards and to Lifetime Homes criteria. This will ensure they are homes which will be both functional and enjoyable into the future.

A Fabric First approach has been favoured in terms of incorporating sustainability in all aspects of the building design, with a focus on making the energy saving process effective but easy enough for the occupier to operate.

Judges

Professor Marcial Echenique

Panel Chairman

Urban and Regional Planning Expert
Marcial is a professor of Land Use and Transport Studies and head of architecture at Cambridge University. He is internationally renowned for his work on the integration of transport planning and land use and has been involved in research projects for the likes of The United Nations and The World Bank.

Marcial holds close links to Cambridge, he directed the Cambridge Futures study (RTPI award for planning innovation) and co-directed the joint urban design studio of Cambridge, MIT Institute.

Robert Marshall

Marshall Group Chief Executive

Robert was appointed Chief Executive Officer of the Marshall Group of Companies in January 2012, becoming the fourth generation of the Marshall family to become Chief Executive.

Having graduated from Cambridge University with a degree in Engineering, Robert first worked as a Scientific Research Associate at Lockheed Martin in the USA, before founding a business designing and manufacturing specialist equipment for use in microbiology laboratories. Robert joined Marshall in 1994, working in a number of executive roles across Marshall Aerospace, Motor Group and Specialist Vehicles before taking up his current role.

Robert has been highly involved in the creation of Wing, having personally selected the master planners earlier this year.

Ingrid Schröder

Cambridge University Department of Architecture Representative

Ingrid is the director of the MPhil in architecture and Urban Design at Cambridge University. Her depth of experience and respected position means that she is a dynamic design reviewer and critic who is aware of the talent of students and professionals based in Cambridge.

Ingrid has just completed a PhD at LSE as part of the Cities Programme. The Cities Centre is dedicated to the understanding of contemporary urban society, relating physical structure to the social structure of a city. Ingrid also has experience teaching abroad at ETH in Zurich.

Dr Robin Pellew

Cambridge Past Present & Future

Robin Pellew is the chairman of Cambridge Past Present & Future, a local charity that works to keep Cambridge and its surroundings special by influencing planning decisions, and by managing the green spaces and historic buildings in its care for the benefit of everybody. He established the World Conservation Monitoring Centre in Cambridge and is the ex-CEO of the National Trust for Scotland.

Robin is also currently the chair of multiple National Forest Company committees and an independent consultant in the heritage/conservation sector. These broad experiences in addition to a firm understanding of Cambridge give Robin a unique judging perspective.

Richard Johnson

Cambridge City Cllr

Richard is the Labour and Co-operative councilor for Abbey Ward on Cambridge City Council, and alumni of Downing College who now works for the University of Cambridge at the University Library.

His active engagement within the community as a school governor, presence in local government, and position as a representative and steward for the Unison trade union demonstrates his passion for shaping and representing a balanced community. The provision of housing, particularly for council tenants, and the impact of local transport on surrounding residents are issues which Richard is particularly interested in.

Dr Joan Whitehead

Cambridgeshire County Cllr

Joan is Abbey's Labour County Councilor and a former Cambridge University Psychology lecturer. She has lived in Cambridge since 1981 and has been involved in union and equal opportunities work both within the university, Abbey and the wider community.

Joan has an interest in architecture and how the design of the built environment impacts on the social behavior of individuals. Additionally Joan is particularly passionate about improving public transport services in Cambridge, and ensuring that the city's cycleways, footpaths and highways better meet the needs of local people from all backgrounds.

Vince Farrar

Fen Ditton Parish Council

In addition to being the chairman of Fen Ditton Parish Council Vince is a serial entrepreneur specialising in business start ups in IT systems and solutions. He is the Director, CFO and chairman of his latest venture, Property Panorama Inc. which uses immersive technology to provide virtual tours of property.

Public Art Steering Group

The importance of design and aesthetic appreciation on Wing will not be limited to the architecture of the homes or buildings. Public art will be woven into every aspect of Wing, bringing to life the themes of 'transforming the ordinary' and 'Victorian engineering principles' through a varied and progressive art strategy.

In February 2013 an open invitation was sent out to all the surrounding all parishes, councils and societies calling for those who were interested to attend the first Public Art Steering Group meeting, chaired by the Lead Artist, Matthew Lane Sanderson. Matthew has a growing reputation within Cambridge, largely due to a his involvement in a number of public commissions including the Corpus Christie clock, Bottisham Village College sculpture and the St faiths school gates.

Representatives from the Public Art Steering Group will aid us in the selection of the commissioned artists, and in overseeing the art activities throughout the build program, providing the maximum opportunity for local people to be responsible for the creation of the place where they live. Each of the commissions will include a proportion of community engagement and therefore new residents will be involved and invited to join the group when appropriate.

Introducing an influential panel at an early stage will ensure that the potential quality for public art is maximised as well as the value, to the benefit of those living and visiting Wing.

Members of the PASG

Character and Layout

Wing's masterplan comprises a number of different character areas which aim to form a balanced development. An understanding of this layout and the feel of each area was crucial to designing a home that fits in with its surrounding context.

The landscape will be more formal in character towards Newmarket Road and the City, becoming more relaxed and informal towards the north and east where the site meets the rural edge.

Newmarket Road Boulevard will be a leafy, two-tiered avenue, with the scale of the buildings creating a sense of enclosure. Behind this will be the Central Quarter which has a more urban feel, characterised by a formal grid of streets lined with a variety of housing types. At the centre of this neighbourhood is Beta Square, a more formal urban park providing a landmark open space at the junction of the site's important east-west route.

The Market Square will be located at the heart of the new settlement, with most community facilities clustered in the vicinity. These will include the primary school and nursery, community hall and shops with new homes located above. Uniting the southern and northern residential neighbourhoods will be Gregory Park. Lining its edges on either side will be three storey terraced houses, similar to those found along Brookside in Cambridge, behind which will be smaller homes in mews and courtyards. This park will be a focus of outdoor recreation activity and will have a series of focal points and vistas along its length.

The centre of the northern neighbourhood will have a lower density and be defined by The Crescent, a curved tree lined avenue with two and three-storey semi-detached homes along its length, alongside which will be the small landmark circus, with mostly two-storey homes at its heart, completing the area.

The Competition Concept & Format

Historically, the character of Cambridge's urban fabric has been influenced over time by the construction of a variety of dwellings, illustrated by its medieval core, Georgian town houses and Victorian workers' cottages, through to pre/post war estates, 1960's blocks and contemporary infill and fringe developments. Each area has its own character which, together with the places for work, study, leisure and culture, contributes to the essence of the city.

The building material language of Cambridge has been characterised by locally sourced Cambridge buff brick and creamy oolitic Ketton limestone, with variations and additions to this basic palette resulting in a diverse richness of detail across the spectrum of buildings and streetscapes.

As an ideas competition, DraWing asked entrants to draw on the character of Cambridge and provide ideas for the design of a single dwelling - focusing on the external character, detail, fabrication and materiality of the Wing development. We asked what should the essence of this new place be – and how will it be manifest in the fabric and articulation of the built environment?

The competition welcomed architectural students, graduates or professionals - either working individually, or as a group or practice - with an interest in the character and development of Cambridge. Entrants had three months to create designs accompanied by a 100 word statement, explaining their personal relationship with Cambridge.

Following the submission deadline there was a judging afternoon and prize giving reception, at which entrants and competition associates were invited to view the 62 designs and collect awards.

A public exhibition also drew in crowds and visitors were encouraged to vote for their favourite design in the public choice category. This was won by Andrew Drummond's detached house entry - nicknamed the 'bubble house'.

The DraWing Competition Brief

The main objective for the submission requirements was to foster creative freedom, whilst maintaining a design's ability to be integrated into the wider Masterplan.

Wing's position in the planning process meant there was a degree of flexibility which led to an original and eclectic colllection of submissions.

Plans had to depict the building's physical elevation and layout in addition to the vision and feel of the space, including consideration of materials and design features. Ingenious cycle storage, parking solutions, bin storage and other innovative ideas were encouraged, as well as regard to external private space and the relationship between the dwelling and street frontage.

All designs were required to adhere to the space standards set out in the Mayor of London's, "London Housing Design Guide" – which are reflected in the space standards set out in Cambridge City Council's Draft "Cambridge Local Plan 2014", Policy 50.

Each house had to include at least two parking spaces in addition to two cycle spaces for the first bedroom and one additional space for each room thereafter.

Successful entries illustrated an approach to environmental sustainability in line with Level Four of The Code for Sustainable Homes and considered Lifetime Homes Criteria. Submissions were encouraged to adopt a fabric first approach in addition to using locally sourced materials where possible.

Submitted on up to two A3 boards, each design detailed one of the following six house types:

1. Mews house: 2 bedroom, 2 storey 83-87.5sqm GIA (7.5-9.5m frontage)
2. Mews house: 3 bedroom, 2 storey 106-111sqm GIA (8-10m frontage including an integral car port)
3. Town house: 3 bedroom, 3 storey 113-118sqm GIA, including an integral car port (8-9m frontage)
4. Semi detached house: 3 bedroom, 2 storey 110-115.5sq GIA (7.5-9m frontage)
5. Semi detached house: 4 bedroom, 3 storey 125-131.25sqm GIA (10-12m plot width including on plot parking)
6. Large detached house: 4 bedroom, 3 storey 142-150sqm GIA

LARGE DETACHED HOUSE:

4 BEDROOM 3 STOREY 142-150SQM GIA

01 Mole Architects

The streets in Cambridge we love best have small-scale detail, a good connection between the houses and the streets and a scale that is intimate as well as feeling quite grand. We've tried to replicate this in our three inter-related submissions. We've re-designed the streets to make places that would be wonderful to live in. All have a view of the park, and are terminated with a sense of grandeur. We've designed a layout that accommodates a few more houses, which might fund a slightly better standard of internal space; more space, and more storage, which is what people want.

02 Andrew Armes & David Williams

We are a team of two.

David Williams is a long-term resident of Cambridge choosing to move into the heart of the City close to where he has his office. He knows the City intimately, and is a qualified Blue Badge guide.

Andrew Armes is East Anglian born and spent his formative years at Purcell Miller and Tritton, often working in and around Cambridge including Jesus College, Anglesey Abbey and Ely Cathedral.

We both love Cambridge for the way it brings together ancient and modern, promoting high design standards and inspiring creativity in new ways and places to live and work.

03 Andrew Drummond

(R H Partnership)

Cambridge has been my home and my workplace for the last thirteen years; a small compact city of community and university. Cambridge is a city I would visit as a child, an historic journey through generations of architectural design, museums and riverside picnics.

Working as an architect in Cambridge I have enjoyed access to hidden away architectural gems, and a privileged opportunity to refurbish, restore and extend them for future generations of students.

Today it is the city I fell in love, married and call my home.

04 PGABOR Associates

Cambridge, England is a world renowned city that has a celebrated and complex history, yet it is also constantly moving towards the future. As a powerhouse in the technology sector the city lives up to its nickname as the 'Silicon Fen'. The city in turn attracts young innovators and professions. Their presence aids in making the city vital and alive. As a result, I believe Cambridge has become a city with one foot firmly in the past and the other constantly reaching for the future, allowing for a rich and fulfilling present that I wish to contribute toward.

05 Archipelago Architects

A battered orange-covered book found on my grandparent's bookshelf called 'Cambridge new architecture' sparked my interest in architecture as a teenager growing up in Cambridge. The uncompromising forms and tough materials of The History Library and nearby Harvey Court -and other post-war projects from this time -seemed very precisely scaled and cohesive. The ensemble of terraces and green space at Parker's Piece or Jesus Green, as well as the qualities of the landscape around; the Gog-Magog hills and the Roman Road, as well as the Backs, were taken for granted as a background to the character of the city.

06 Christian Tattoli

Cambridge, an urban space where any type of project, idea, art form has been imprisoned on sheets of paper to be read by future generations.

The project for the design of the new large detached house was not only an opportunity to design a sustainable eco-friendly building with functional areas but also one that impacts the urban space and contributes to its redevelopment.

The shape of the building and its structure becomes the dynamic element inserted into a consolidated urban space.

The house represents a modern bridge within a city, following the natural vital flow of the urban space.

07 Once Architecture

Located in central Cambridge, Once Architecture takes an independent and innovative approach to high quality design. The flexibility of our working style, coupled with our extensive knowledge of Cambridge, allows each project to flourish over time, either through close design development with our client or in the leadership of a design team drawing on a range of professional knowledge. Expertise in sustainable building methods and renewable energies underpins our strong design concepts. We promote the latest, most efficient developments in sustainable architecture to best complement the budget and ambition of every project.

08 Sarah Wigglesworth Architects

Cambridge feels like a second home to both Sarah Wigglesworth and Eleanor Brough, being the only other place besides London where they have lived. This was for a fond five years as architecture students. The unique variety and quality of the architecture of this city has had a lasting influence on the work of the practice, which has been sensitised to the nuances of place, nature, materials, historic precedent and innovation that has set the pattern for our future work. We are currently working on North West Cambridge for the University and are immersed once again in the city's magic.

09 Studio 24 Architects

Cambridge represented a new life beyond the trappings of London to Mark Richards, when with his young family, a daughter and another expected he moved here seven years ago. Since then it has become their home, a place to thrive, become familiar with and get to know its character, places and experience its culture.

In 2012, Mark started an architectural studio to explore the progressive ideas and thoughts about places and buildings held in common with a developing sustainable city, and what that might represent to its patrons and his own family's evolving story.

10 Mart Barrass Architect (Ltd) Mart Barrass RIBA

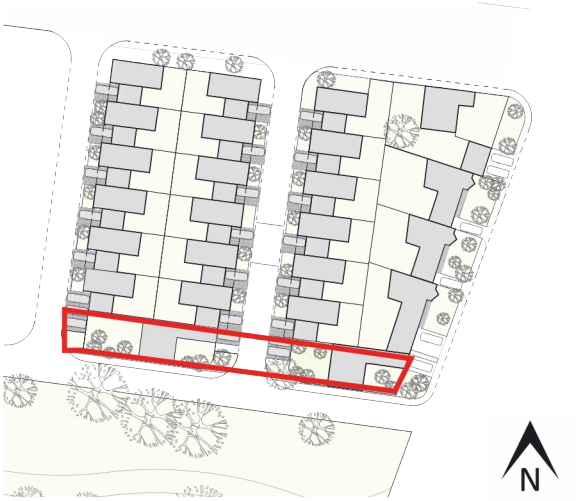
Elected a Chartered Member of the Royal Institute of British Architects in 1996, Mart has lived and worked in Cambridge for the last 15 years, establishing his own practice in 2010 to focus on the design of innovative, intelligent and sustainable habitats.

Real life experience of growing up on a hill farm in the Yorkshire Dales, studying in the historic city of Oxford and the planned city of Washington DC., with a number of years working in central London and the Alps, inform his outlook and insight into the challenges and benefits of both rural and urban living.

KEY

- 46 — Competition entry number
- Large detached house
- Large semi-detached house
- Semi-detached house
- Town house
- Mews house - 3 bedroom
- Mews house - 2 bedroom
- People's Choice
- G — Gold Award
- S — Silver Award
- B — Bronze Award

Large Detached House DH6/01



House type within new urban block plan

Location within masterplan

Cambridge precedent

VILLAS ABOVE A WALLED GARDEN OVERLOOKING THE PARK

* REAL STREETS
  - Car Parking off the street- no car courts!
  - Living rooms overlooking street
  - Front gardens overlooking the park

* INCREASED DENSITY
  - 15 % extra houses = 15 % extra quality

* LIVE WITH THE SUN AND TREES
  - Streets & houses orientated for solar gain
  - Streets terminate in view of the park

* FUTURE FLEXIBILITY
  - Smaller houses designed for future additions

*PRIVATE GARDENS
  - Houses designed to respect privacy and prevent overlooking

DH6/02 Type 6 : 3 Storey 4 Bed

Front Elevation

Side Elevation

147.5 sqm GIA, 9m plot frontage

Villas with windows allowing sun all day

Southerly orientation for all main rooms

Brick and stained timber to entrances

Garage and forecourt

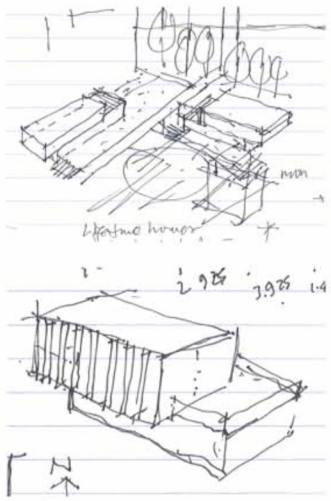
Integral bin and bike store accessed internally

Future first floor extension to rear

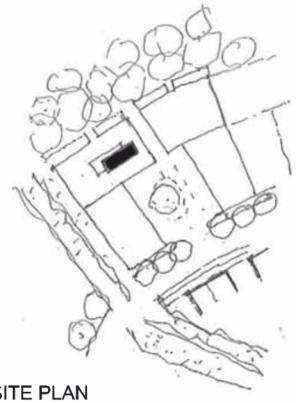
Future roof-top room with roof terrace

Views top both garden and park

HOUSE FOR ALL SEASONS - FOUR BED DETACHED



LOCATION PLAN



SITE PLAN

Design

The house itself is conceptually quite simple. It comprises two slipped rectangular boxes sliding diagonally past one another. This creates the potential for shelter on the ground floor and a viewing platform on the first floor.
The Woodland Edge has a pleasant outlook with potential views through the woods in winter and over Gregory Park.

To benefit from the views the living spaces are raised to the first floor as a "Piano Nobile" with bedrooms below.

The Piano Nobile is used extensively in Cambridge, most notably at Trinity College Library, most recently at the Sainsbury Laboratory, and even in the facade of the Regal/Arts Picturehouse.

The first floor is a large glazed space and contains the living room, kitchen and dining/family room. Above this is a large gallery for studio/office/guests. Cambridge is above the national average for home working and this should be encouraged as the only way a new housing development becomes a neighbourhood is through its people. If people are there during the day then the need for local services is developed and communities formed.
On the ground floor, which is in a Gault brick skin, are the entrances and bedrooms with direct access onto the gardens.

As Cambridge is now the centre for technology, engineering and scientific industries the house is designed to explore how technology can help residents live in **a house for all seasons.**

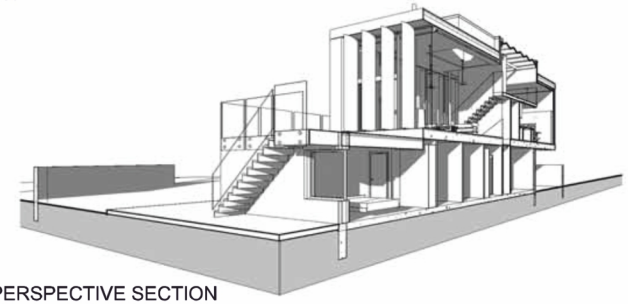
Sustainability - How the house works

The skin of the living spaces is Super Insulated Glass by Saint Gobain and Sage Electronics. It is triple glazed, gas filled and can be charged with low voltage electricity which progressively darkens the glass to reduce glare and solar gain, reducing light transmission from 52% to 3%.It has an insulating value of R8 (U value 0.13) which is below many well insulated walls. This is further enhanced by moveable, insulated bronzed zinc clad brise-soleil which are controlled by a Building Energy Management System to deflect sunlight or control heat losses depending on weather conditions. These are vertical aero-foil in form referencing Marshall's connection to aeronautical engineering, the airport and reflecting the columns of Trinity College Library.

Environmental systems include:
Ground source heat pump with underfloor heating.
MVHR system.
Solar Thermal.
Photovoltaics.
Rain water harvesting.

This house would exceed the Code Level 4 criteria in the brief.

VIEW FROM THE NORTH



PERSPECTIVE SECTION

S.W ELEVATION

S.E ELEVATION

HOUSE FOR ALL SEASONS - FOUR BED DETACHED

Paradigm not pastiche

What is the essence of a place? How should it form part of a historic continuum to achieve time-distinctive development, particularly in a global age? This is a question which should be asked of any urban extension on the edge of a spectacular ancient city. One of the clearest manifestations of this idea is Borneo Sporenburg in Amsterdam and, while not Cambridge, this exemplifies the approach we are adopting in our design for new housing which is not only of its place, but of its time. Whilst Sporenburg is clearly of its time, it is deeply rooted in its past. There is a clear line between the housing of the 17th century, the layering of spaces, the relationships of solid to void and transparent to opaque. Local distinctiveness should not be about copying the past and in doing so making both the past and the present less rich, but drawing upon the essence of a City and making the present at least as interesting and relevant as the past.

Cambridge

While it could be argued that Amsterdam may be primarily defined by the 'Inner Ring' of canals and merchants' houses, Cambridge is far more complex and diverse with intimate residential streets juxtaposed to grand college buildings, creating the urban form of the City. It is the colleges which have given the city its most defining character with a strong tradition of growth carried out with exemplary buildings "of their time".

For centuries **Cambridge** has been the meeting point of art, architecture, engineering, science, technology and philosophy. **Wing** is an area where the city meets the countryside, where industry is side by side with agriculture, where the airport meets the park and ride. What the **house for all seasons** tries to do is to draw together all those influences as an example of what Cambridge has become - an innovative, cutting-edge,21st century City deeply rooted in tradition but inquisitive and open minded.

Opportunity for self-build housing.

The Woodland Edge could provide a great opportunity for people to build a house for themselves. This is not the intention of the current master plan, but the team thinks there are good reasons to consider this approach:

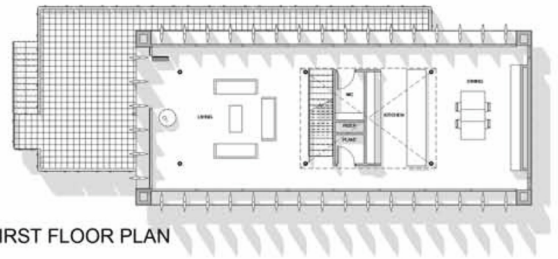
There is a huge demand for self-build plots.
Cambridge is successful - new techno - scientific companies.
There are people in the City who can afford to do it.
Increases diversity. and variety of houses (within Design Codes)
Opportunity to live/work- neighbourhood populated during day.
Showcase of technological innovation.

The proposal is to change the size and shape of the plots but keep to the area allocated as the Woodland Edge.
This house is as briefed, 3 stories and four bedrooms but bigger at 200m^2 as people who build for themselves are able to reinvest what would of been developer profit in higher quality and more space. This house is shown is for illustration only of what might be achievable within possible design codes.

It is designed as a house for all seasons.

VIEW FROM THE SOUTH

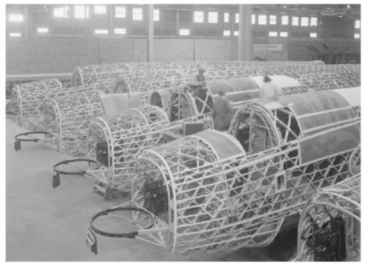
GROUND FLOOR



FIRST FLOOR PLAN

IM1J0LGVDC

Concept & Inspiration

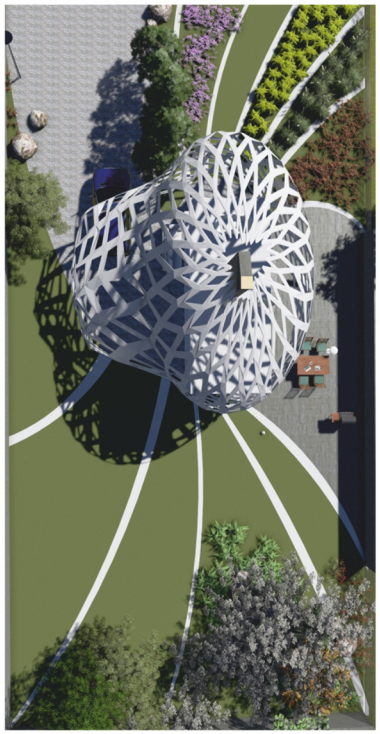


Aviation Heritage : Wellington bomber geodesic airframe structure

Structure & Skin

Embracing Technology & Innovation : Timber gridshell structure with high performance triple glazed skin with Pythagoras Glass outer pane with building integrated photovoltaics (BIPV), triple layer skin provides thermal comfort and inner pane of Smart Glass technology automatically adjusts level of transparency and light transmittance to avoid glare and excessive heat gain, the users can also control privacy levels by making panels opaque via their tablet PC or mobile phone.

Site 18x36m



0 1 2 5 10m

Configuration

A. Access-Pod - bicyles, recycling area and car port for 2no cars;

B. Hub - Wood burning stove at heart of the home provides warmth and visual comfort;

C. Living Zone - street facing living or work space;

D. Living Zone - primary open plan living area;

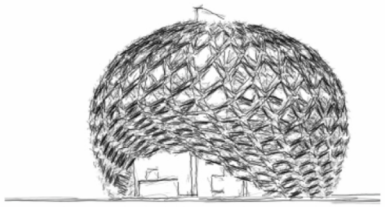
E. Living Zone - External terrace area extends the living space;

Layout

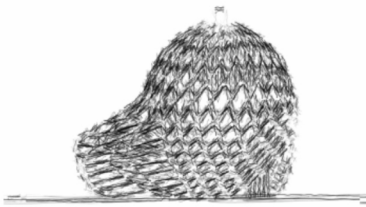
Second Floor

First Floor

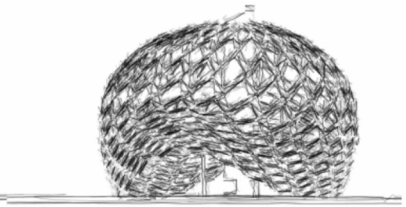
Ground Floor



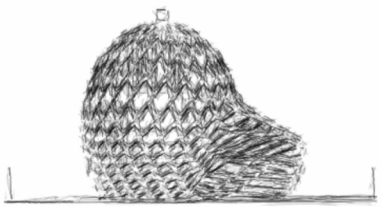
terrace elevation



garden elevation



'access-pod' elevation



street elevation

0 1 2 5 10m

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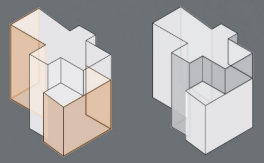
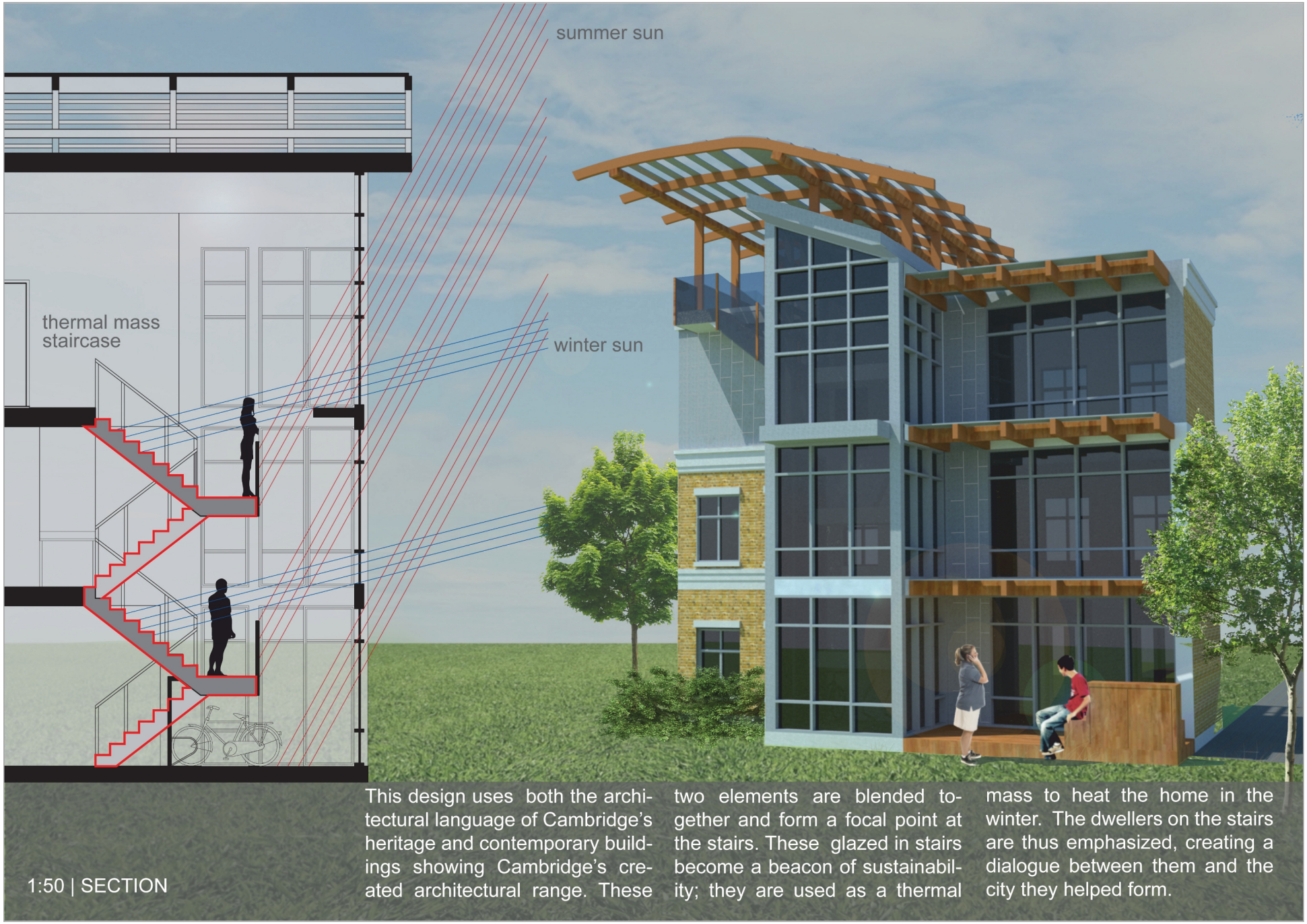
The Cambridge Home



1:150 | PLANS



1:50 | SECTION

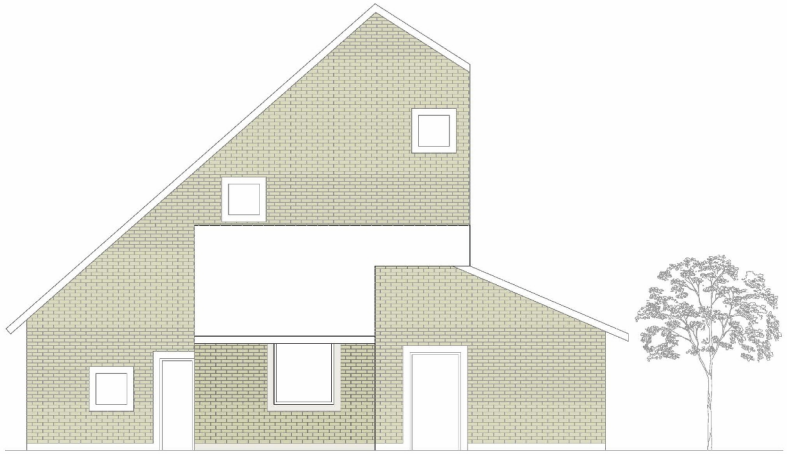
This design uses both the architectural language of Cambridge's heritage and contemporary buildings showing Cambridge's created architectural range. These two elements are blended together and form a focal point at the stairs. These glazed in stairs become a beacon of sustainability; they are used as a thermal mass to heat the home in the winter. The dwellers on the stairs are thus emphasized, creating a dialogue between them and the city they helped form.

1

3

4

2

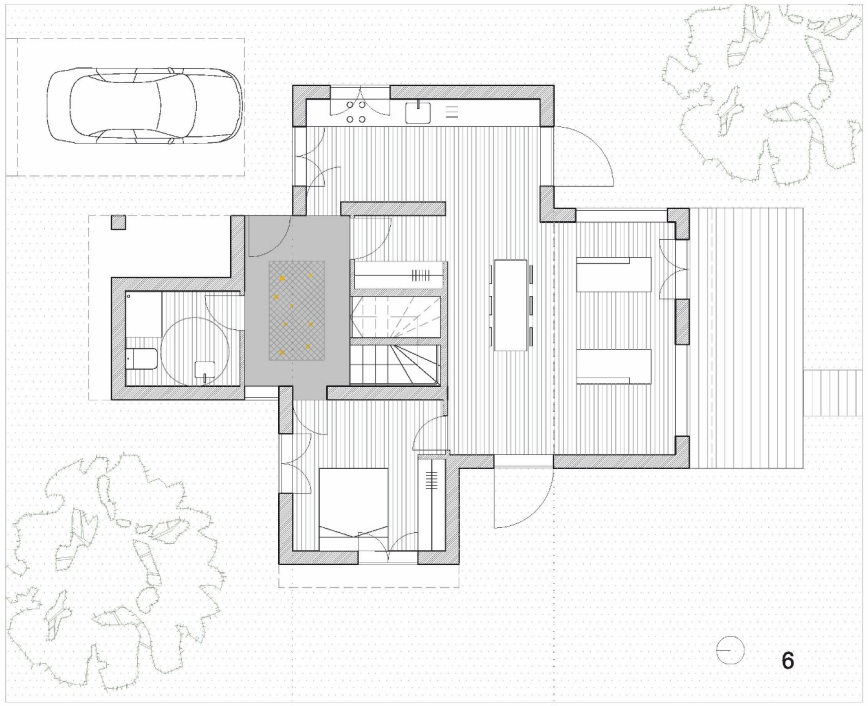


5

DETACHED HOUSE 2 146sqm

1. combination of dweling types 1:1000
2. model view
3,4,5. elevations 1:100

0 1 5



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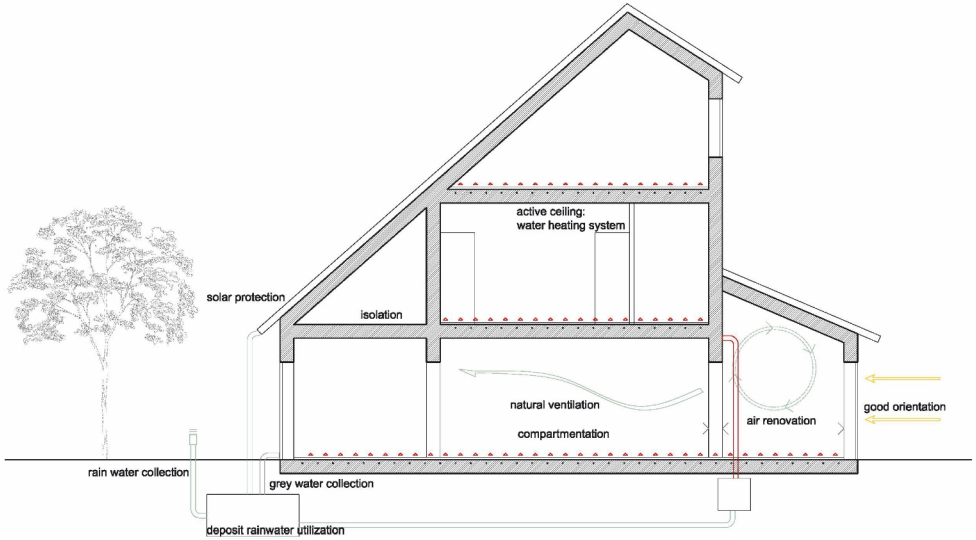

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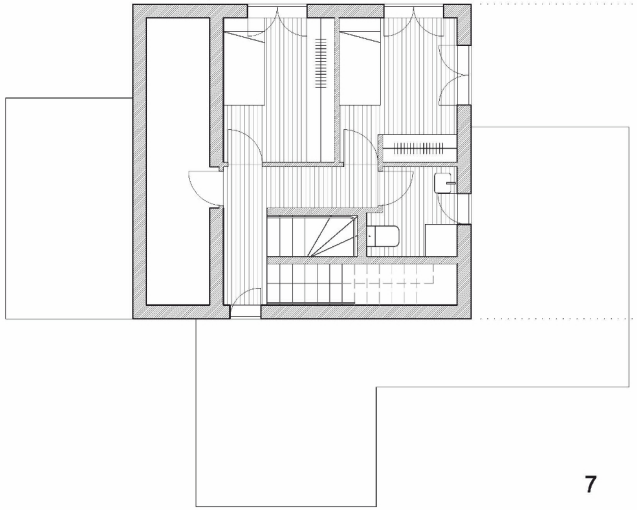

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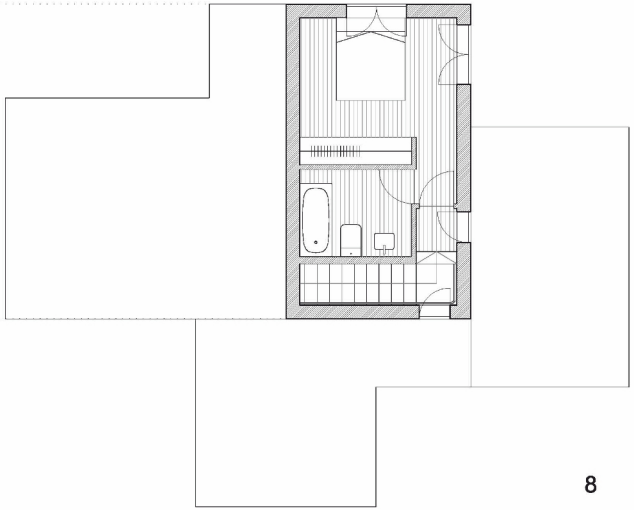
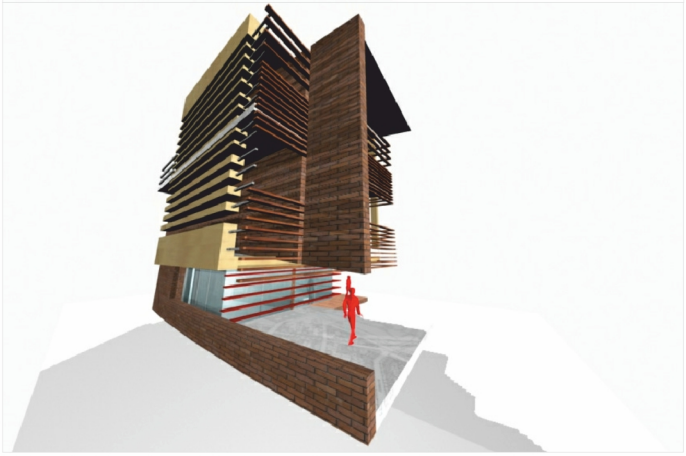


8

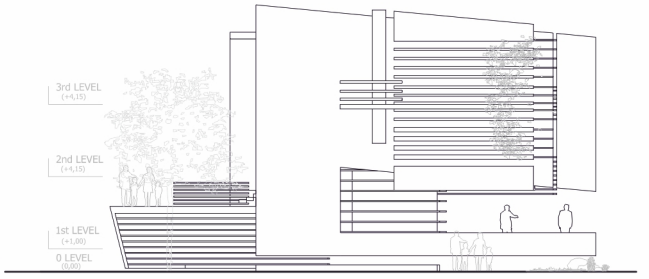
0 1 5

DETACHED HOUSE 2 146sqm

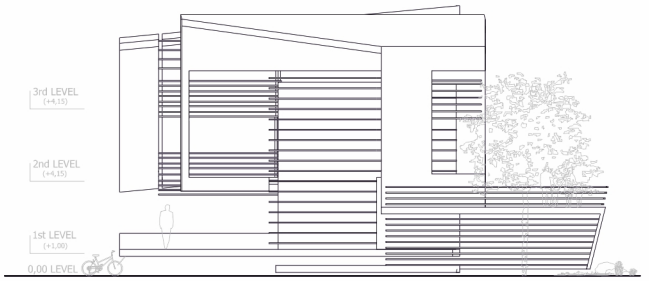
5. ground floor 1:100
6. first floor 1:100
7. second floor 1:100
8. third floor 1:100
9. section 1:100



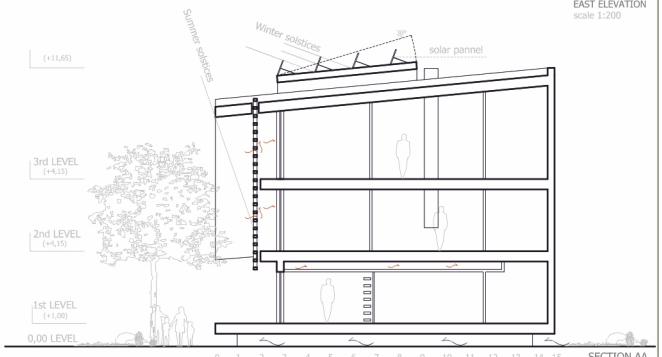
In this project the housing block has been considered as an "island" and the" sea" is the surrounding park with its natural shapes and colours. The park is both part of the inside space and its opposite outside. Trees and every kind of natural element work together with steel and are an integral are part of the house and its structure.



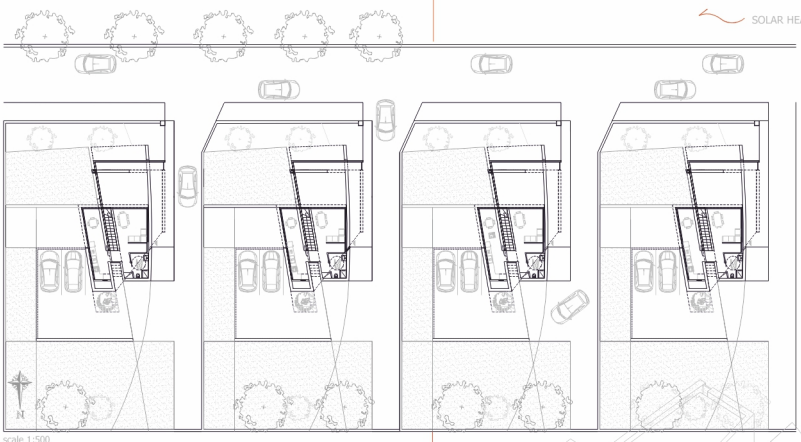
WEST ELEVATION
scale 1:200



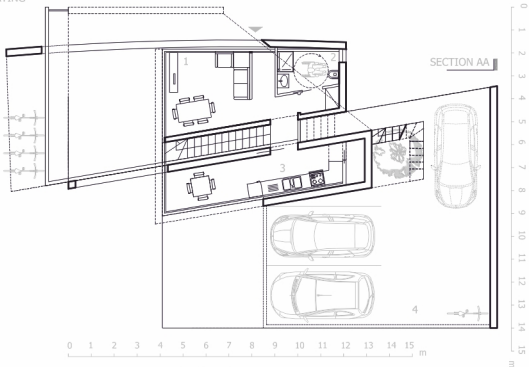
EAST ELEVATION
scale 1:200



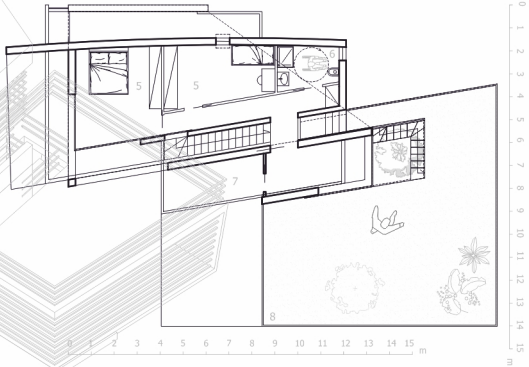
SECTION AA
scale 1:200



scale 1:500

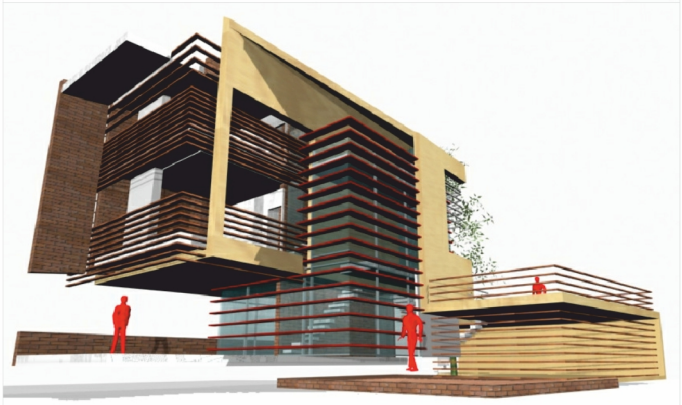


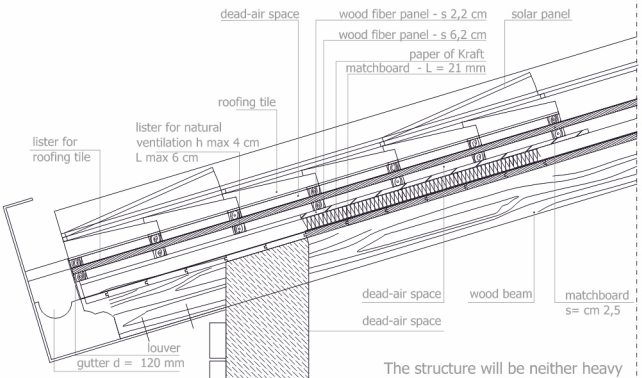
PLAN FIRST LEVEL
1 - SETTING ROOM 2 - KITCHEN 3 - BATHROOM 4 - GARAGE
scale 1:200



PLAN SECOND/THIRD LEVEL
5 - BEDROOM 6 - BATHROOM 7 -TERRACE 8 - ROOF GARDEN
scale 1:200

7SOUTYQEB9



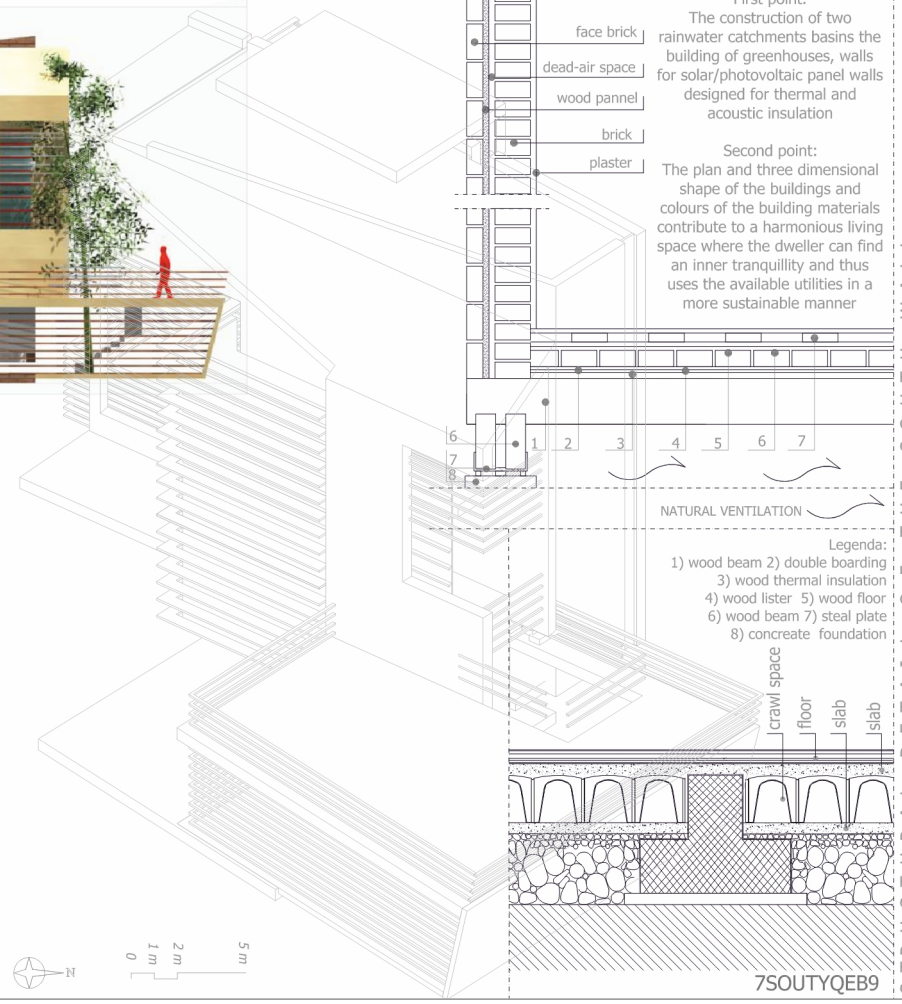


The structure will be neither heavy nor intrusive, but blend harmoniously with the natural elements. Accordingly, different prospects utilise material such as, wood, glass and brick, applied so as to afford both thermal insulation and passive energy.
The north wall will be built of brick and plaster, which has narrow openings in the surface, which create a strong element of closure between the internal and external space. Also opening the windows of the masculine wall of the staircase, it is possible to increase the natural ventilation during hot days. Part of the south wall is a small greenhouse, giving a transparent view of the external garden.

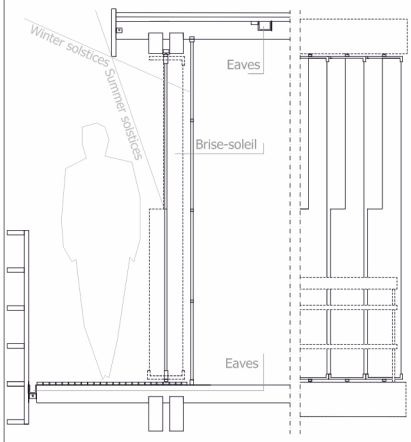
The creation of a building aimed at energy saving was complex and based on two fundamental points:

First point.
The construction of two rainwater catchments basins the building of greenhouses, walls for solar/photovoltaic panel walls designed for thermal and acoustic insulation

Second point:
The plan and three dimensional shape of the buildings and colours of the building materials contribute to a harmonious living space where the dweller can find an inner tranquillity and thus uses the available utilities in a more sustainable manner



SKEATCH OF THE SHADING AND OF THE LIGHTING SYSTEM



Solar pannel are installed on the terrace and by a steel frame work, formed from u-section profiles, they can inclined according to the angle of incidence of the suns rays, (summer and winter solstices). The shade on the south erly exsposed glass wall is partially obtained from wooden Brise-soleil which can move transversely and rotate at 360° on their vertical axis.

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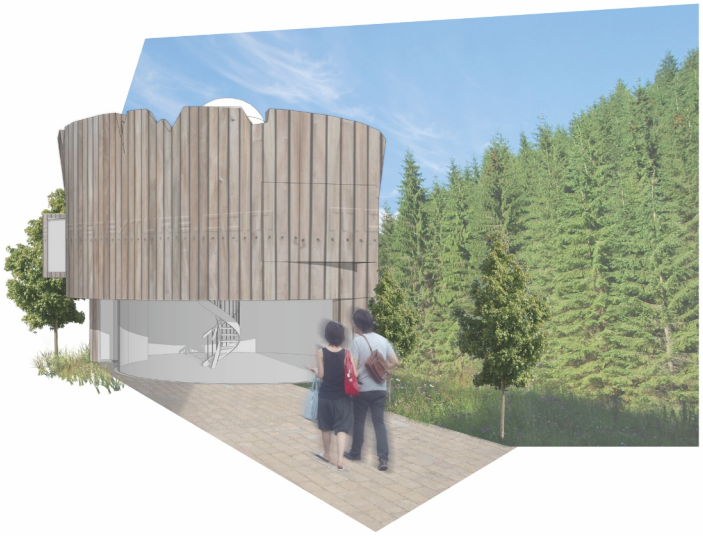
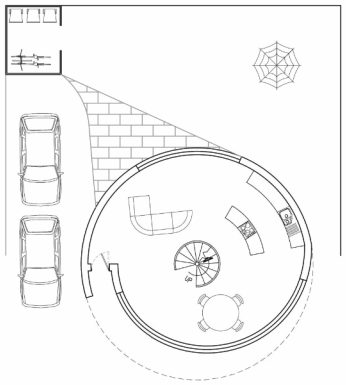
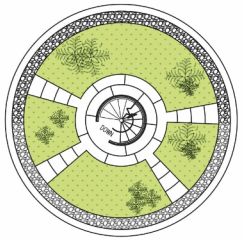
STRUCTURAL DETAIL OF THE SOUTH WALL

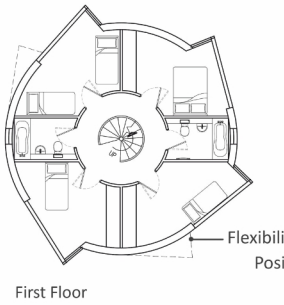




Ground Floor

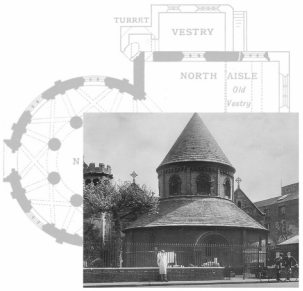


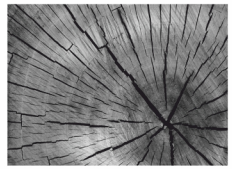
Roof Plan



First Floor

Flexibility in Bay Positions





House Type WOODLAND EDGE
Large Detached. 4 Bed, 3 Storey.

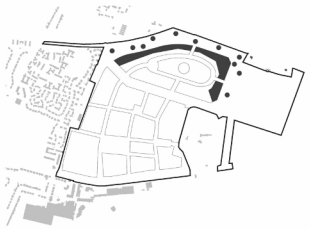
House Area 135.3 m²

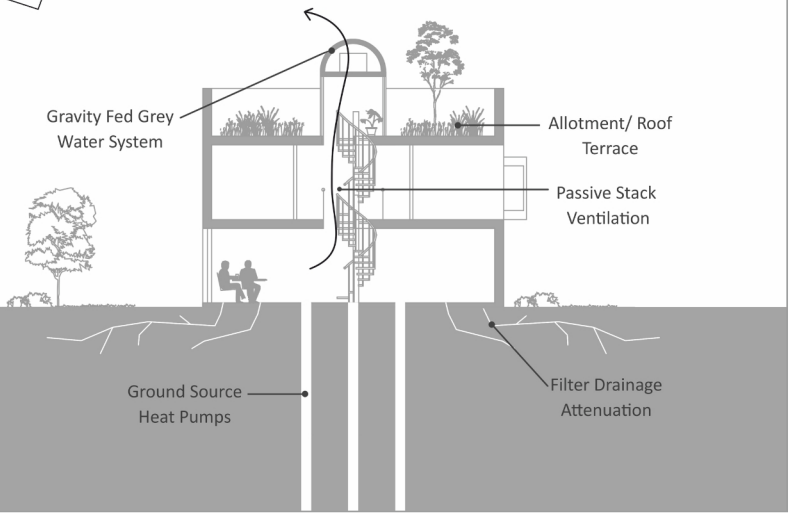
The concept has been derived from the immediate context; Woodlands Edge. Surrounded by trees, the design takes the form of a tree stump. The concept is further enforced by the wider context; Cambridge. Circular buildings have always been prominent within the city. Their simple forms can be seen throughout architectural genres.

The plan form allows maximum flexibility for both the developer and the occupant. Stories may be added or omitted. Plans can be rotated. The directional oriel bays can be positioned in whichever direction. Thus allowing the building to be placed anywhere on the site and then adapted to maximise the benefits of its sitting.

Constructed in timber frame and clad in timber, all materials could be locally and sustainably sourced. An allotment is located on the third story ensuring that it is always south facing, regardless of where it may be positioned on a site. The central spiral core, the most efficient of circulation spaces, provides passive stack ventilation. The design houses a gravity fed grey-water recycling system and bore-hole driven ground source heat pump below.

The essence is to achieve the home which can remain adaptive and flexible for growing family needs, while maintaining strong design ethics.





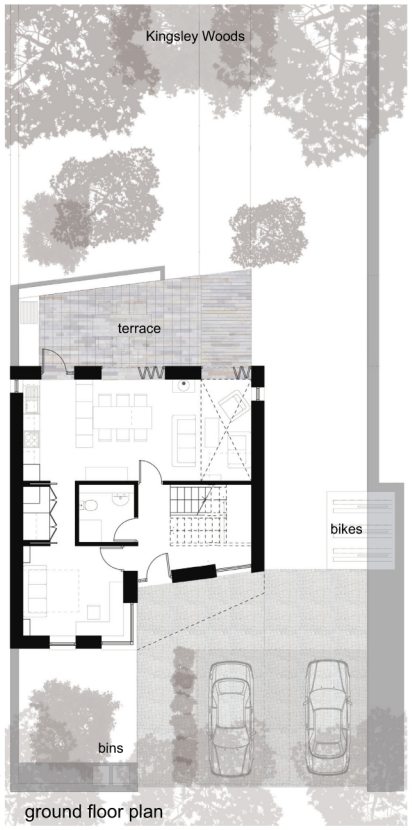
house type 6

Adaptable Villa

the smart Cambridge home that adapts as your family grows

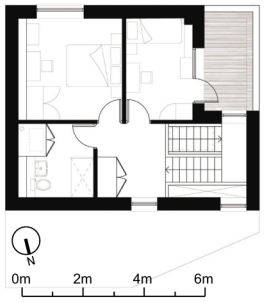
Local gault brick, clay tiles and distinctive roof forms continue the Cambridge villa tradition at the Woodland Edge

1 2

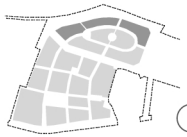


ground floor plan

first floor plan



second floor plan



Woodland Edge character area

key facts	
GIA	145sqm
frontage	9+3.5m
bedrooms	4
storeys	3

- A low energy family home that uses intuitive passive design features to make sustainable living effortless
- The house designed to adapt to your family's changing needs: simply add living space, install a lift, or divide into two apartments to release equity
- Local gault brick and clay tiles resonate with Cambridge's heritage and sit harmoniously amongst the maturing trees of the Woodland Edge
- A generous, robust and flexible house with plenty of space for kids to play, parents to entertain, guests to stay and entrepeneurs to start a business

Local clay tiles and distinctive roof forms define the Cambridge villa tradition

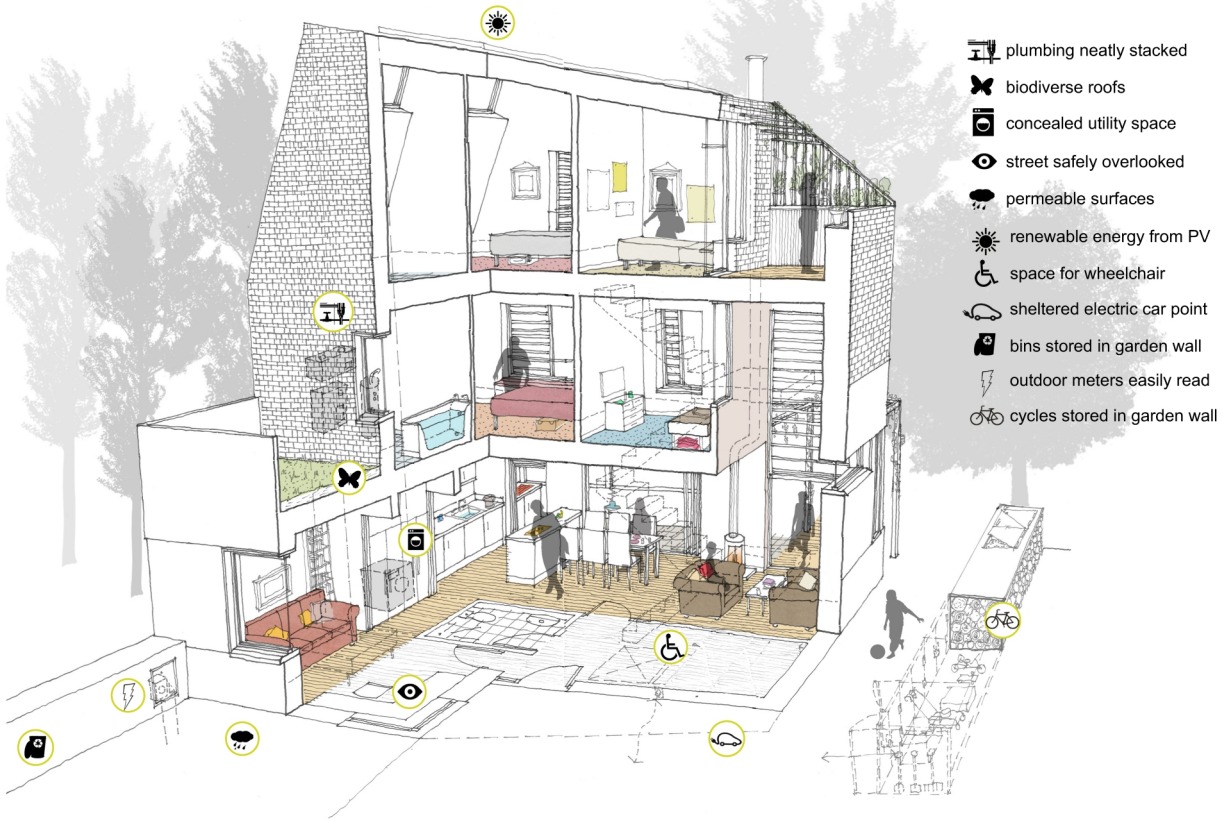
house type 6

smart yet simple

- passive low energy house that's intuitive to use
- bathrooms and WCs neatly stacked in 'smart zone'
- flexible open-plan living spaces for busy families
- solar panels, wood burner and insulation cut bills
- indoor and outdoor spaces flow together

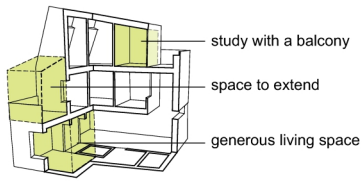
big house, low carbon

- a contemporary four bedroom 145 sqm villa
- country lifestyle at the edge of Cambridge
- natural finishes from ecologically sound materials
- house opens up to backdrop of Kingsley Woods
- outdoor space at every level

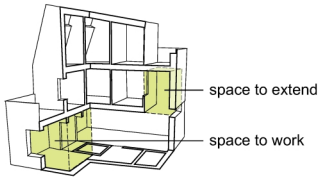


adapts to your changing needs

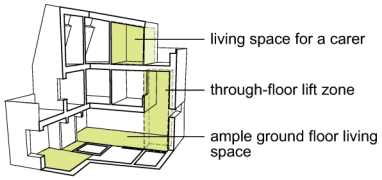
growing family



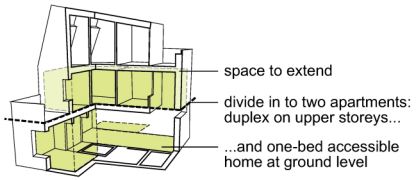
sharing with others

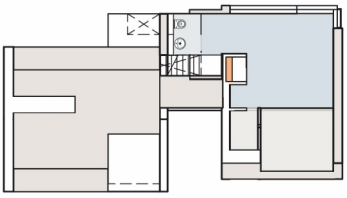


accessible home

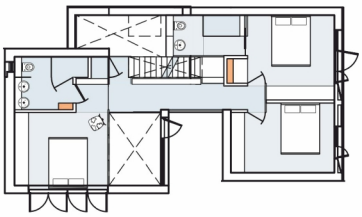


downsizing

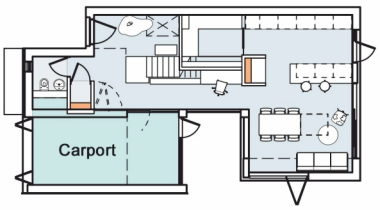




Second Floor - usable roof space



First Floor



Ground Floor

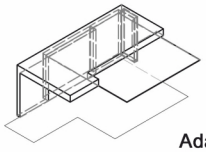
Concept

Two simple volumes orientated east west, each based upon a square plan have a simple saddle roof. To prevent these imposing an overly traditional form of architecture, the structures have been made abstract where possible, such as wrapping the roof material down over the first floor facade. Appearing to resemble Dutch gambrel roofs (found locally in late medieval buildings), the gault clay tiles are replaced with metal shingles. The shingles create a reference to the sites association with aviation and the use of tile hanging found locally on 1950's housing in Cambridge.

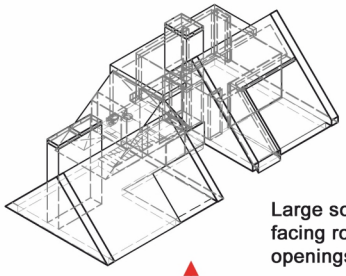
A third roof oriented north south, perpendicular to the internal stair, visually relates neighbouring dwellings whilst also internal staircase connectivity between ground and usable roof spaces.

Internal planned spaces surround an external south-facing courtyard, to take advantage of natural winter solar heating. Space functions are capable of plan adaptation. Internal atria enable spaces to be annexed to cater for live/work or later life access requirements.

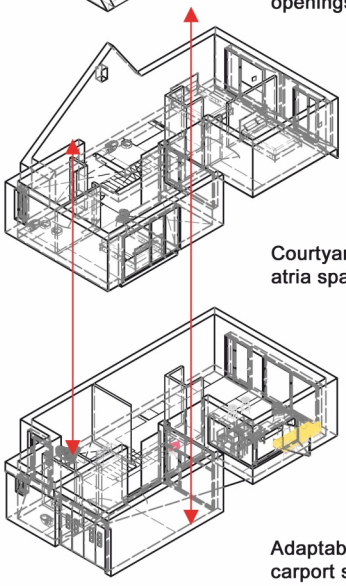
Large solar adaptive openings reinforce the abstract modern character replacing the traditional bay window. Roof openings subvert the traditional dormer window. Chimneys service interior ventilation and heat recovery, while reflecting a local roof heritage and enhancing the woodland setting proposed to the northern site boundary.



Adaptable roof volume



Large south facing roof openings



Courtyard + atria spaces

Adaptable carport space

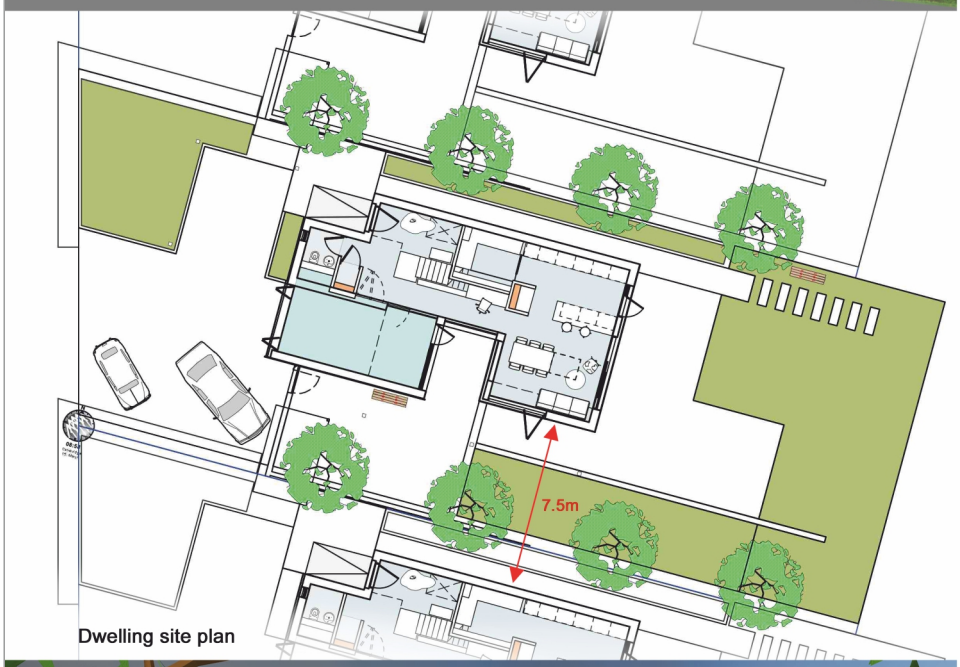
Space planning

The ground floor carport and usable roof volume is anticipated future space capable of conversion. This additional living space can cater for multi-generational living or form a live-work space over two levels, accessed separately at ground level.

Internal spaces are made versatile through the fixed volume concept. Bedrooms at first floor can also be combined to form a linked nursery during early years, or annexed for grandparents during later life, with the addition of a lift in the gallaried entrance.

A landscaped gardens evoking the cloisters of Cambridge sit between dwellings, with privacy asured through blind north facing walls and first floor window shutters that double as solar shading devices.

Entry Ref: 9378YCVZIJ_Sht-2



Dwelling site plan

Adaptive House

Type 6: 4 bed 6 person detatched

Conceived as a home for life, this future high performance, sustainable, fixed volume design is planned to support and adapt to the changing family needs placed upon a typical Cambridge home.

The fixed volume concept provides flexible living through its adaptable internal open planned spaces, approach to daylight and ventilation, internal planning and innovative construction.

A super-insulated, airtight, laminated timber structure would be precision made off-site to create the primary solar responsive envelope. The building services, designed around a fixed volume and orientation, coupled with assisted ventilation and heat recovery with plumbing serviceability at each floor, ensures future building energy prediction and long-term performance to the occupier. Sustainable drainage and grey water storage serve each property.

Orientation

The dwellings are spaced for daylight, passive winter heating and shade and can be aligned up to 25 degrees off an east west orientation. Adjacent dwellings are stepped in plan to create privacy and place between outdoor spaces. Tree planting and hedging is used to define street frontages and garden enclosure with passive solar shading to south facing facades.

Materials character

The innovative aspiration, individual and collegiate character of Cambridge is interpreted through the designs plan and building form and material use.

The proposed engineered timber frame enables larger floor spans, removing dependence on internal walls, whilst removing cold bridges.

The all timber frame sequesters carbon whilst also creating comfort, thermal balance and a healthy internal environment.

Emphasis on natural materials continues internally through the use of timber linings and panels that create room divisions, shutters to external openings and fixed furniture.

Flush pointed brickwork with lime mortar add a traditional solidity to ground and north facing facades and stepped lime render form gable ends.

Large openings that punctuate walls and roofs control daylight and offer solar shade and privacy to internal spaces.

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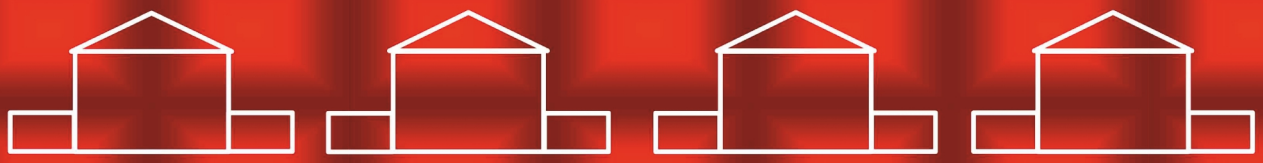


House Type 6

Large detached house: 4 bedroom, 3 storey 142-150sqm GIA

CLONE ZONE

"75% of people would not want to live in speculative housing built in the last 10 years"

source: 2010 YouGov public Poll for the RIBA

New Housing Rating:

29% poor	53% average	18% good

source: Commission for Architecture and the Built environment - Housing Audits 2005 and 2007

The essence of Cambridge is:

*"advancement by discovery and innovation through **experimentation**"*

afford to take RISK – allow for FAILURE – learn from MISTAKE – nurture ADVANCEMENT

Britain's Empty Homes: 2011 Census
(homes with no usual residents)

Cambridge	2,121
East of England	112,463
United Kingdom	980,729

provide 100 affordable plots – invite 100 individual clients – appoint 100 Cambridge architects
employ 100 local contractors – build 100 personal homes

HOME ZONE

Top 10 UK house builders 2012: Housebuilder Oct 2013
(by no. of units):

Barratt	12,857	Bellway	5,226
SELF BUILD	**10,940**	Galliford Try	3,039
Taylor Wimpey	10,886	Redrow	2,458
Persimmon	9,903	Bovis	2,355
Berkley Group	3,565	Crest Nicholson	1,882

analyse the results – make adjustments – continue forward

HOMES not HOUSES

*let the people build **their** future and create **their** community*

ENABLE INGENUITY TO FLOURISH

LARGE SEMI DETACHED HOUSE:

4 BEDROOM 3 STOREY 125-131SQM GIA

11 Saunders Boston

Saunders Boston (previously James & Bywaters) have been practising architecture since 1919 and have been based in Cambridge for 50 years. Over this time we have built countless buildings in the city. Key examples include; Januarys' offices, Downing Street (1960s) Gilmerton Court, Trumpington Road (1960s) Bridge Street redevelopment (1970s) the Mong Building, Sidney Sussex College (1980s) the Crescent, Storeys Way (1990s) Botanic Garden kiosk (2000s).

The Saunders Boston DraWing Team have all lived and worked in Cambridge, two of the team were born and went to school in the city returning to work here after completing their architectural education.

12 Archipelago Architects

A battered orange-covered book found on my grandparent's bookshelf called 'Cambridge new architecture' sparked my interest in architecture as a teenager growing up in Cambridge. The uncompromising forms and tough materials of The History Library and nearby Harvey Court -and other post-war projects from this time -seemed very precisely scaled and cohesive. The ensemble of terraces and green space at Parker's Piece or Jesus Green as well as the qualities of the landscape around; the Gog-Magog hills and the Roman Road, as well as the Backs, were taken for granted as a background to the character of the city.

13 Feilden & Mawson

Feilden+Mawson is a leading architectural practice with a passion for inspired design. Our particular strengths include contemporary design in historic settings. Our Cambridge office, was located in Fen Ditton for 17 years until our recent move to the city centre. Our close proximity to Marshall's for all of those years affords us with a personal understanding of the area and a vested interest in its future. Feilden+Mawson aspires to achieve the highest standards of design quality through rigorous analysis of the brief and site constraints and opportunities to enable the realisation of a design solution that is sensitive to the local and wider context, maximises site potential, and is enjoyable for both residents and visitors.

14 Margherita Cesca

Work. Love. Education. Family. Culture. Business. That's what keeps me in Cambridge! I'm originally from Italy and moved to Cambridge approximately seven years ago. Here I have found more than expected, a place where I feel welcome, trusted, recognised. A city full of tremendous architecture, beautiful design and generous heritage. Cambridge continuously gives me the chance to mix with extremely interesting, smart and fascinating people generating amazing opportunities to be enormously excited about life!

15 Fabrizio Colmegna and Giuseppe Vilardi

For foreigners Cambridge represents the home of ancient culture, excellence and tradition. During our experience working in the UK we realized how this does not mean conservative. Inspired by the vibrant potential of the city and its will of treating social differences as an opportunity we tried to make crafting, technology and new spatial proposal work together towards a space that meets the needs of both students and families and does not consider the living space as a shelter from the outside but opens it to the opportunities that the open space and the social engagement give.

16 Tiziana Mori & Andrew Henderson

Our project makes reference to the large range of existing house types within the urban fabric of Cambridge.

We have aimed to maintain an urban scale on the street frontage, reflecting the many taller Georgian and Victorian residential buildings, particularly on the south side of the town.

At the rear, due to the proximity of communal green space, or other houses, we have kept the accommodation as single storey, with a pitched roof sloping up to 2 storey

accommodation. This echoes the urban cottages found in streets like Orchard St, in the "Kite Area".

The central courtyard, as well as providing privacy, and planted areas, allows us to maintain the Cambridge pattern of houses close to street frontages, and avoid a soulless suburban feel, that would be inappropriate to this type of development.

17 Mart Barass Architect (Ltd) Mart Barrass RIBA

Elected a Chartered Member of the Royal Institute of British Architects in 1996, Mart has lived and worked in Cambridge for the last 15 years, establishing his own practice in 2010 to focus on the design of innovative, intelligent and sustainable habitats.

Real life experience of growing up on a hill farm in the Yorkshire Dales, studying in the historic city of Oxford and the planned city of Washington DC., with a number of years working in central London and the Alps, inform his outlook and insight into the challenges and benefits of both rural and urban living.

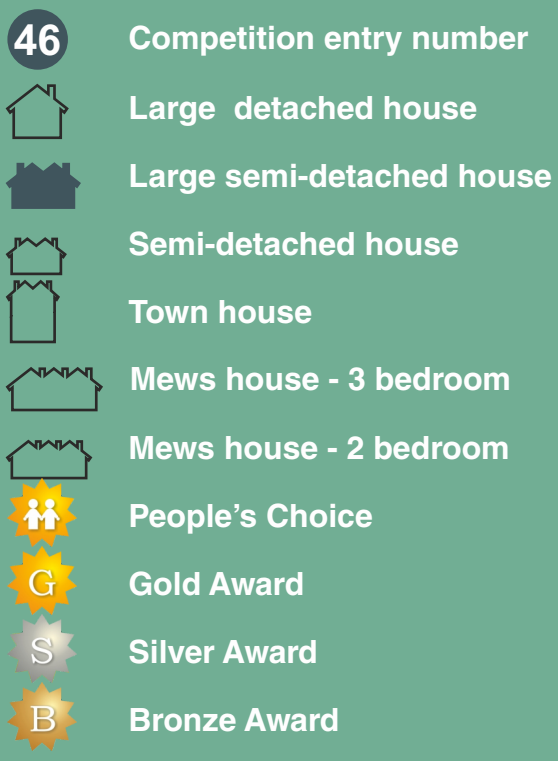
18 Haysom Ward Miller

Haysom Ward Miller is an established practice based in the centre of Cambridge. The practice has a particular expertise in sustainable construction and a design philosophy which aims to achieve well integrated, contextually appropriate buildings.

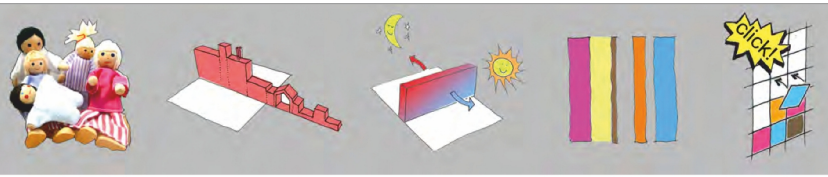
In addition to many domestic projects for private clients, Haysom Ward Miller are currently working across 12 sites on over 100 dwellings for developers in and around Cambridge.

The directors have taught at the architectural faculty and served on the city design review panel. Haysom Ward Miller are winners of a 2011 RIBA Award.

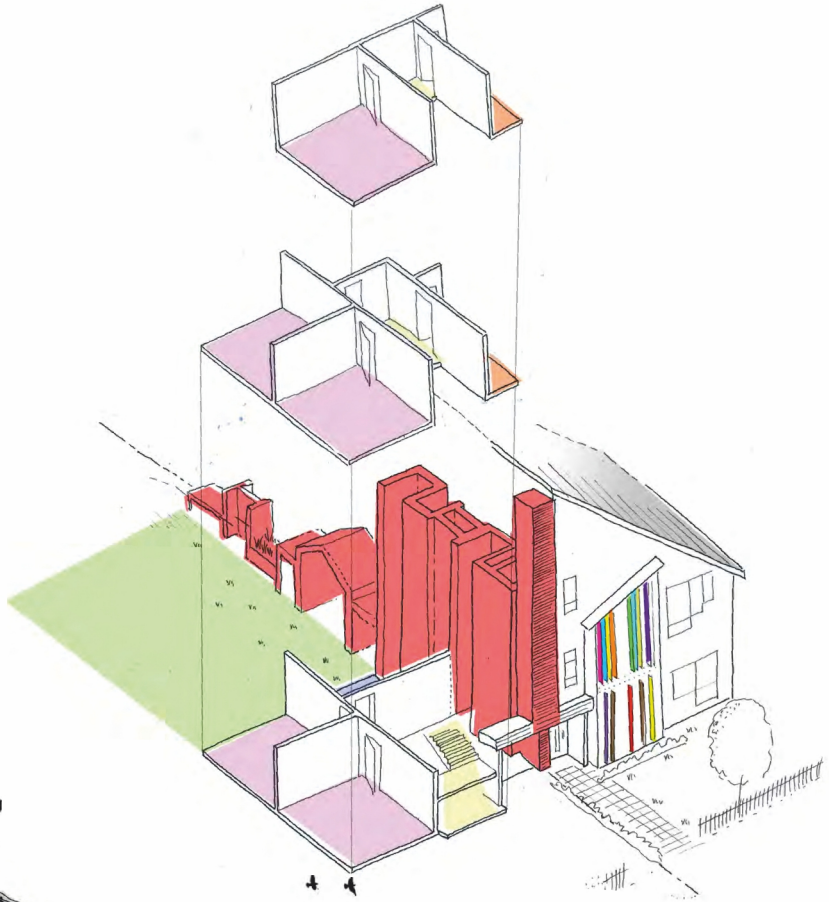
KEY

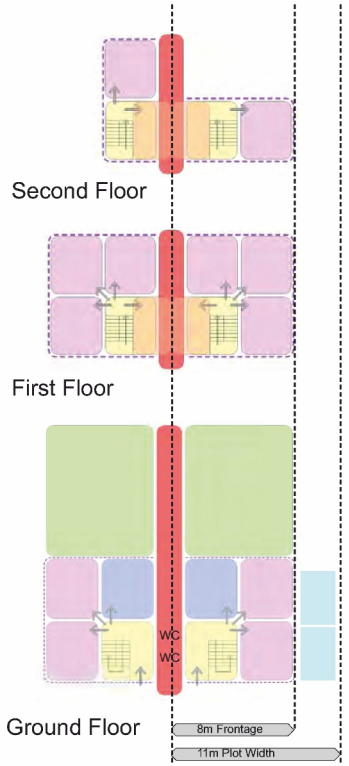


House Type - Semi-Detached 4 Bed

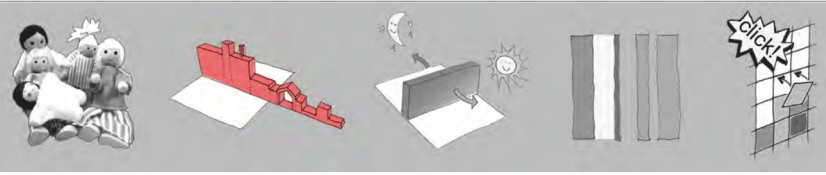


Adaptable facade
Shared boundary wall
Flexible room
Circulation core
Exterior space
Kitchen
Family bathroom
Car port



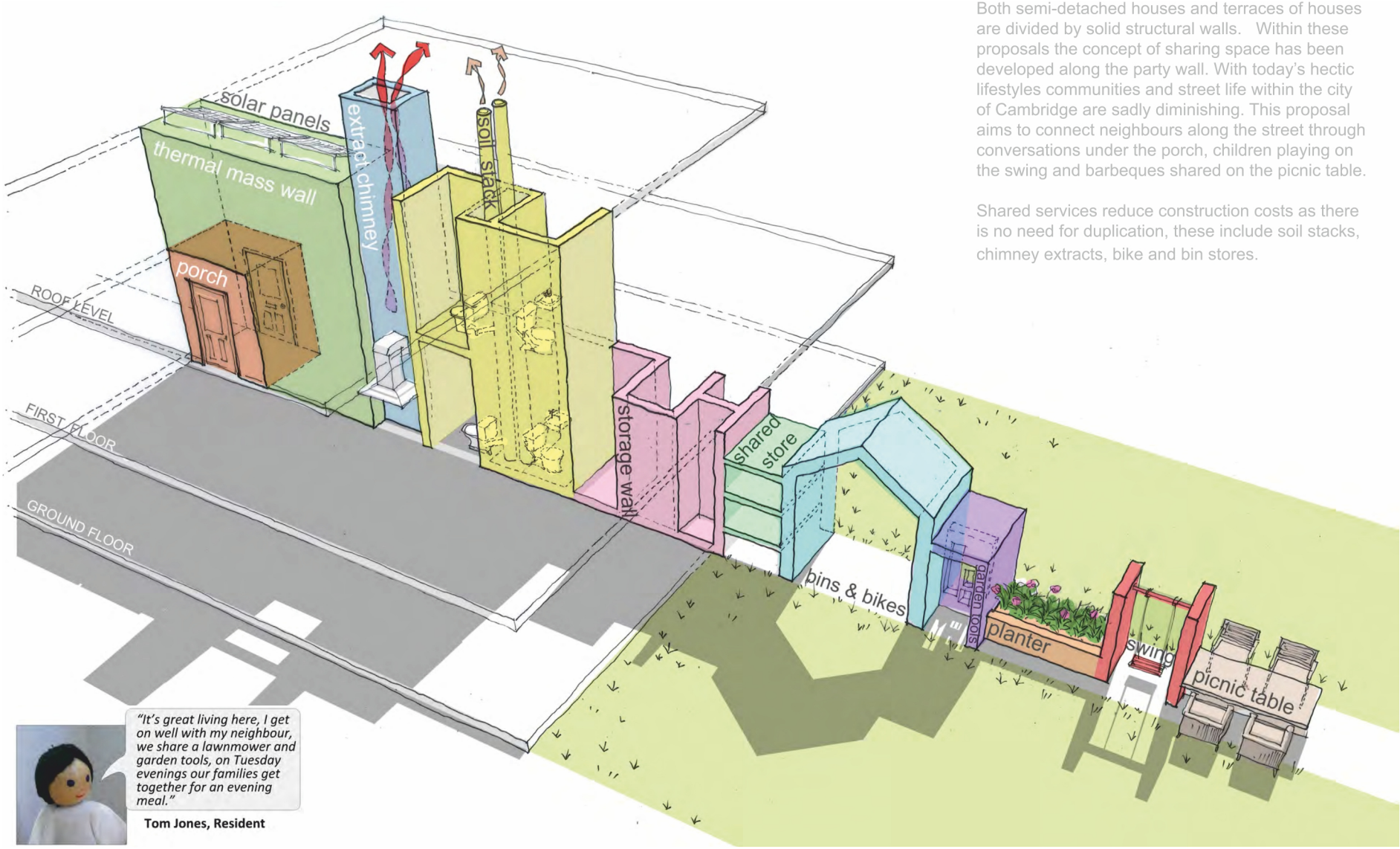


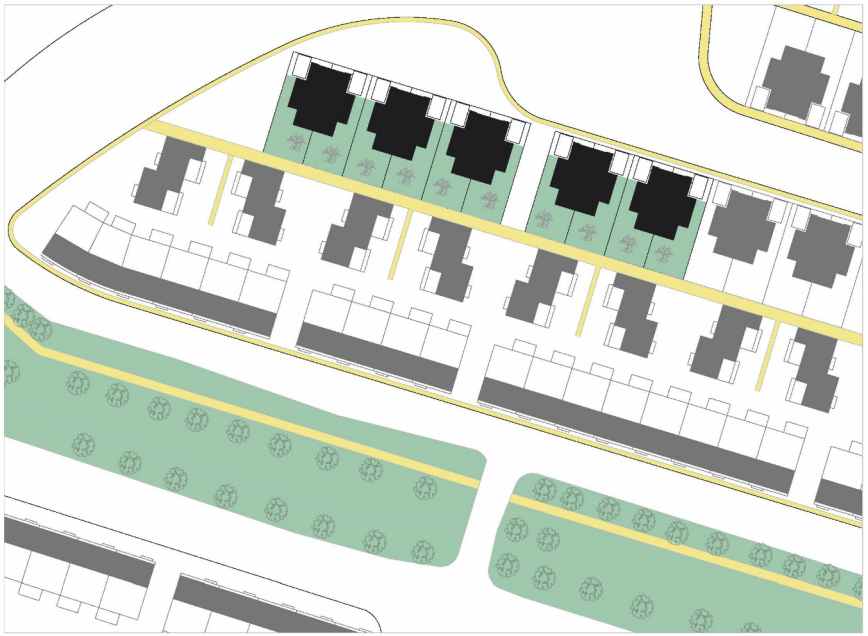
The Shared Wall



Both semi-detached houses and terraces of houses are divided by solid structural walls. Within these proposals the concept of sharing space has been developed along the party wall. With today's hectic lifestyles communities and street life within the city of Cambridge are sadly diminishing. This proposal aims to connect neighbours along the street through conversations under the porch, children playing on the swing and barbeques shared on the picnic table.

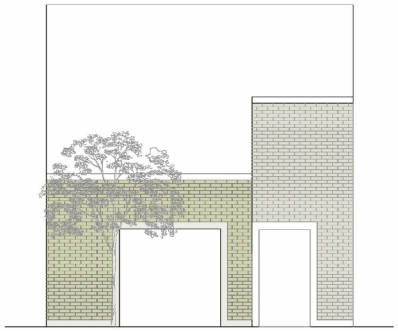
Shared services reduce construction costs as there is no need for duplication, these include soil stacks, chimney extracts, bike and bin stores.





1

2



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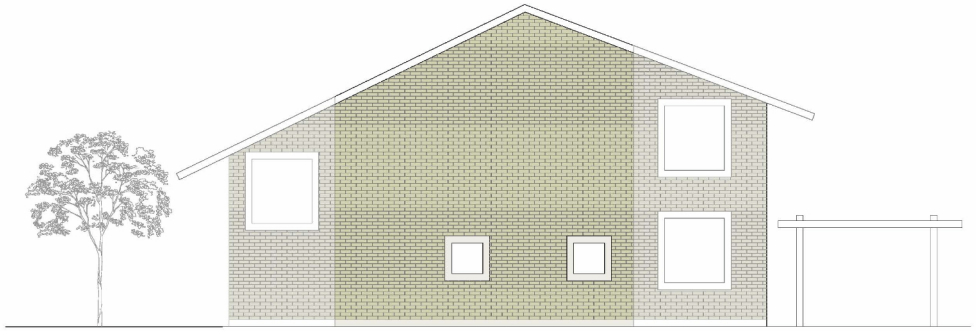

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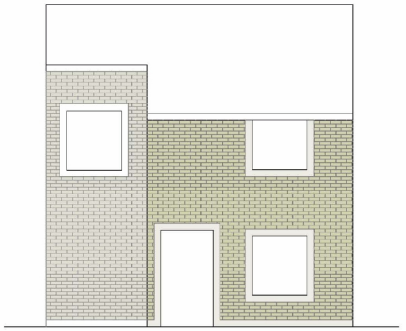
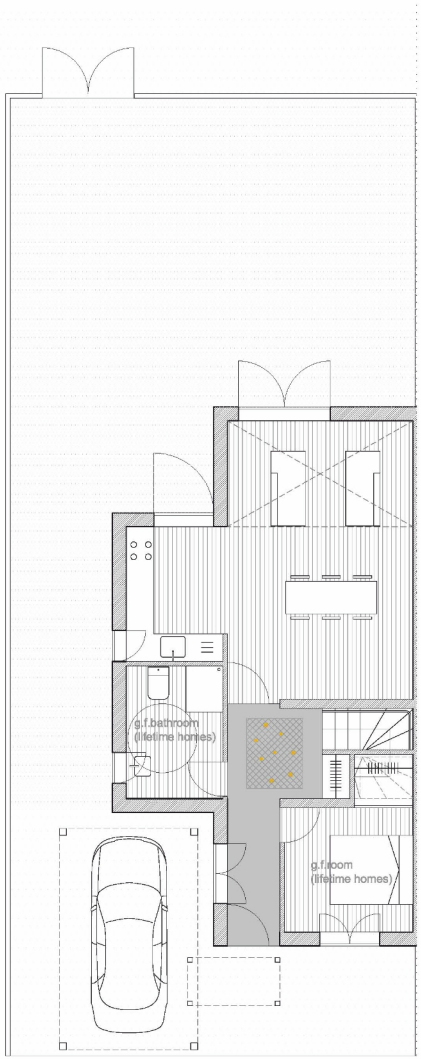


5

SEMIDETACHED HOUSE 2 121sqm

1. combination of dweling types 1:1000
2. model view
3,4,5. elevations 1:100



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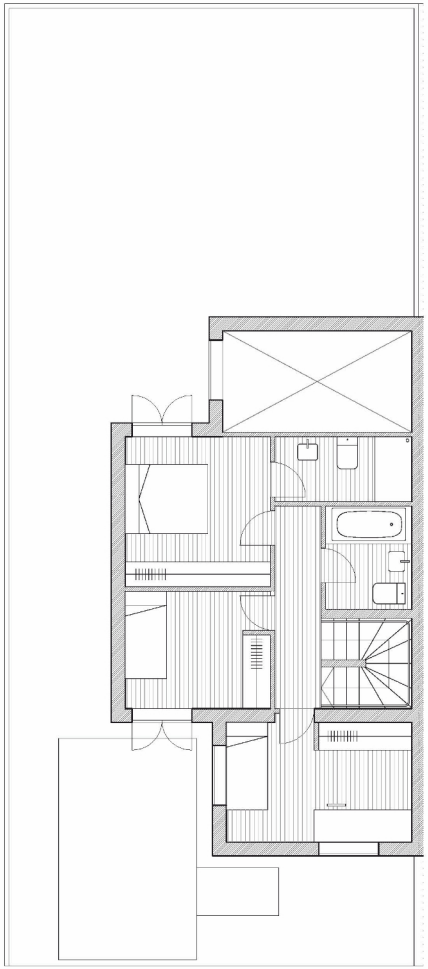

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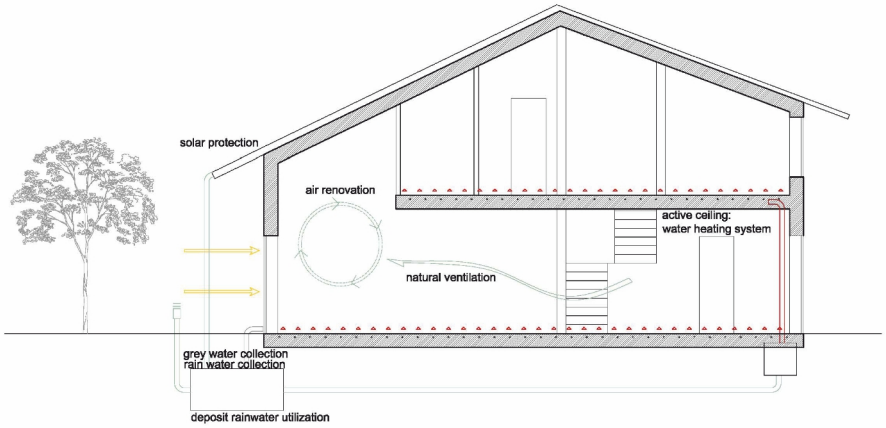


8

SEMIDETACHED HOUSE 2 121sqm

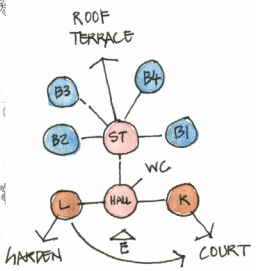
6. ground floor 1:100
7. first floor 1:100
8.section 1:100

0 1 5

Sentinel

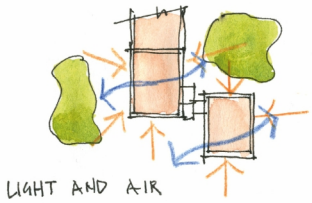
House Type 5 Semi-detatched

We have imagined a semi-detatched end to two rows of terraces that frame a court. Our house type proposes a centinal like bookend, a small moment of celebration, in an otherwise demure row of semi detatched or terraced houses.

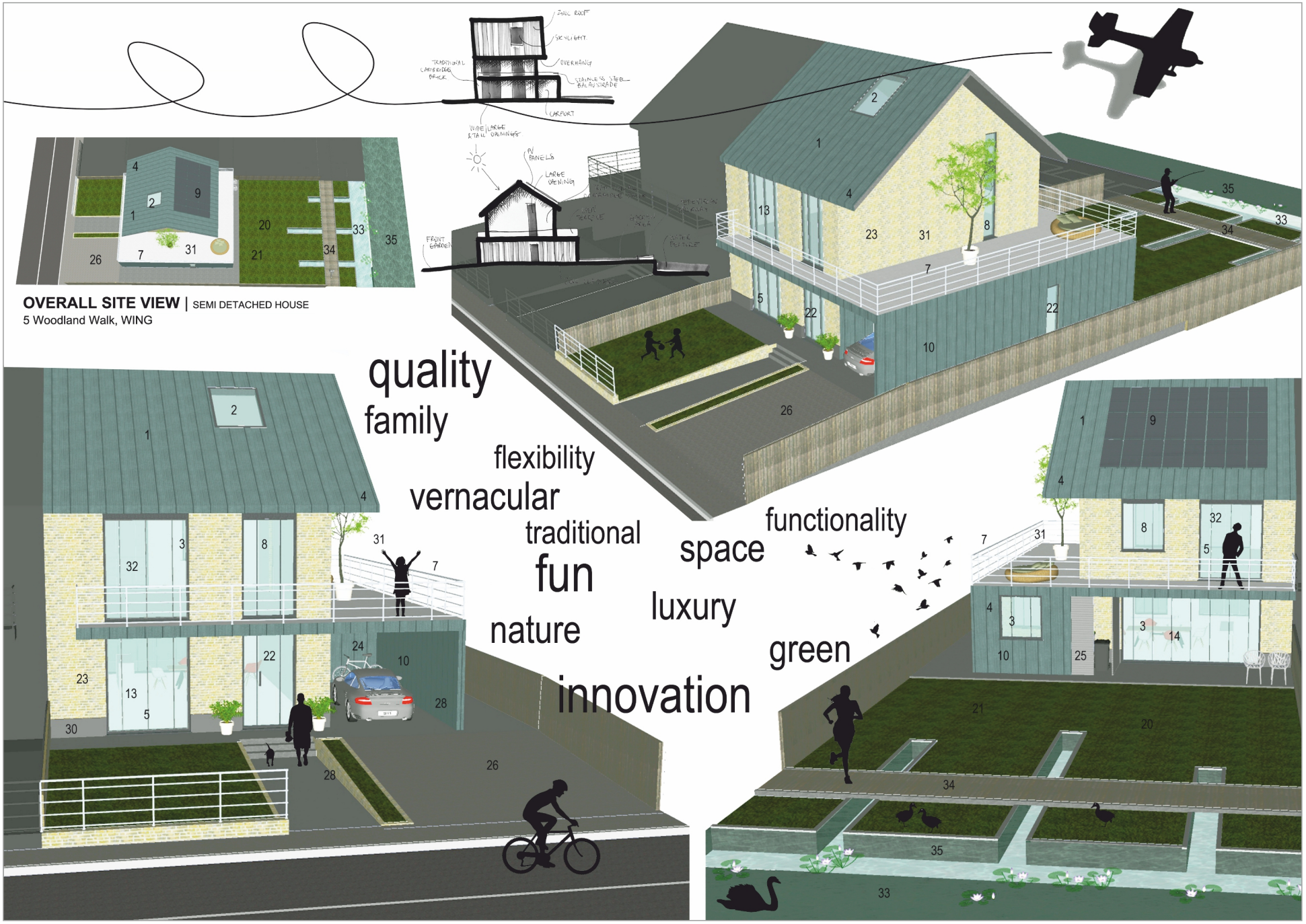


The plan provides a range of outdoor spaces; a paved car court (or hard play area), private garden and roof terrace. The arrangement of rooms offers a spatial syntax to suit different tenure types, from a co-house to a multi-generational family.

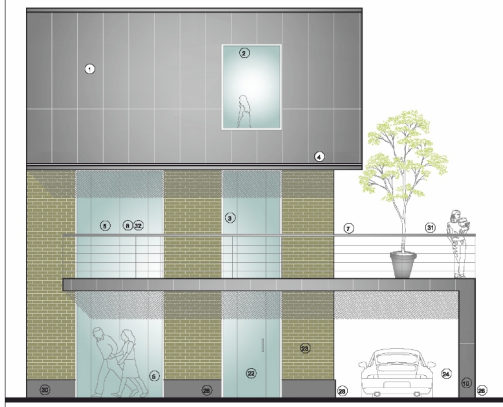
The plan permits windows on two or three sides of each room for optimum ventilation and distributed natural light in any orientation to North. The stair well acts as a natural ventilation chimney with a heat recovery and passive cooling unit at its top.



The materials and forms are drawn from the vernacular Cambridge terraced house; extruded pitched elements of buff bricks, natural lime rendered end pavilions and slate coloured zinc roofs.

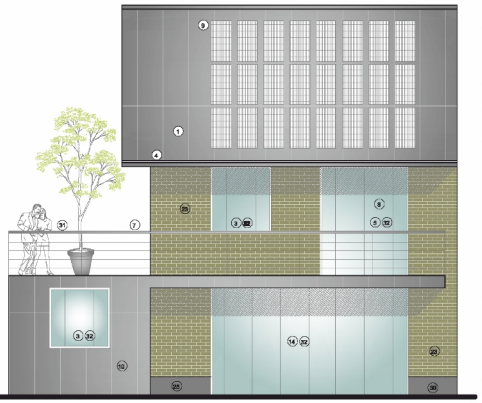

OVERALL SITE VIEW | SEMI DETACHED HOUSE
5 Woodland Walk, WING
quality
family
flexibility
vernacular
traditional
fun
space
functionality
luxury
nature
green
innovation

CHARACTER, FUNCTIONALITY & ECO-*style*

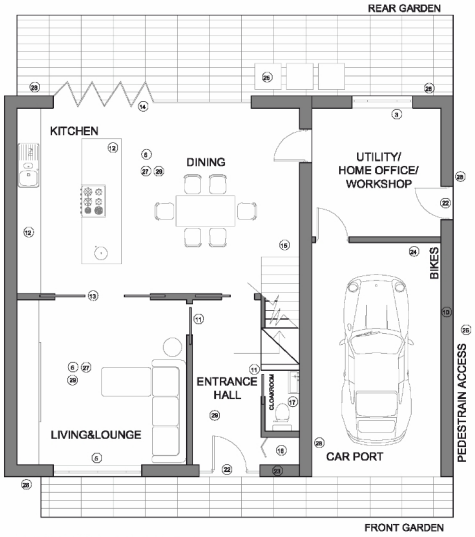


FRONT ELEVATION | SEMI DETACHED HOUSE
5 Woodland Walk, WING

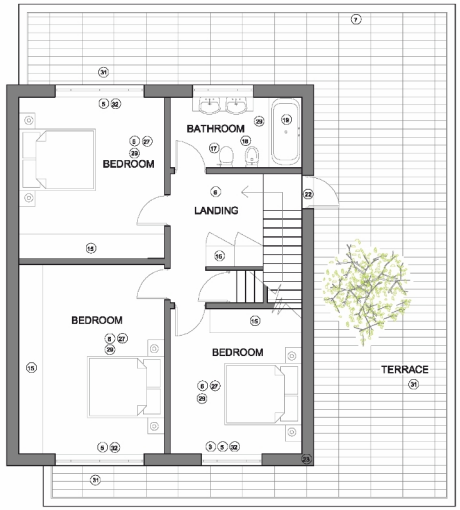
SIDE ELEVATION | SEMI DETACHED HOUSE
5 Woodland Walk, WING



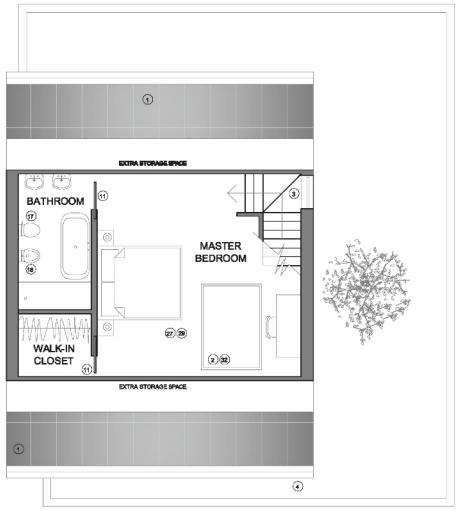
REAR ELEVATION | SEMI DETACHED HOUSE
5 Woodland Walk, WING



GROUND FLOOR | SEMI DETACHED HOUSE
5 Woodland Walk, WING



FIRST FLOOR | SEMI DETACHED HOUSE
5 Woodland Walk, WING

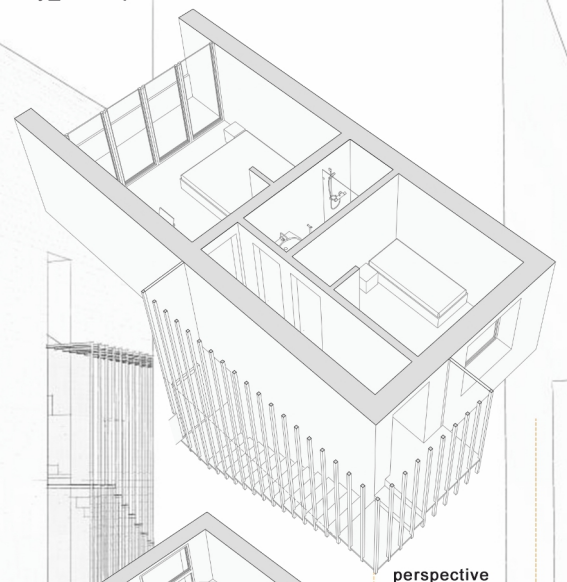


TOP FLOOR | SEMI DETACHED HOUSE
5 Woodland Walk, WING

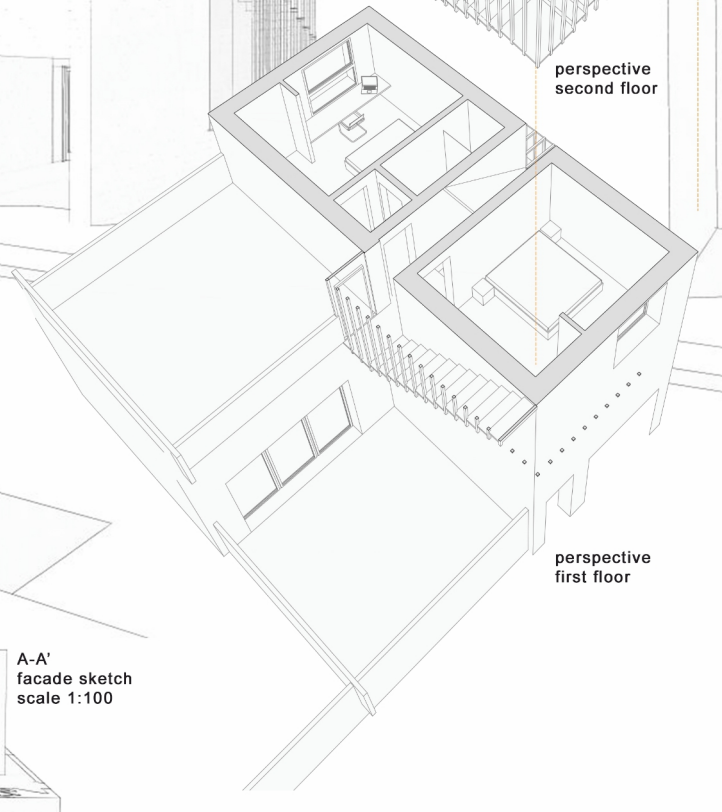
FEATURES

1- Zinc cladded roof as not susceptible to rust or corrosion
2- Skylights with incorporated mechanical blind
3- Composite window (aluminium+timber)
4- Rainwater harvesting system
5- Sliding tall windows/doors to maximise light intake
6- High ceilings min. 2700mm to generate feeling of space, freedom, relax
7- Stainless steel balaustrade to minimise maintenance
8- Triple glazed windows and doors to prevent heat gain/loss
9- PV panels to generate heated water
10- Zinc cladding, a sustainable and high-performance material
11- Pocket sliding doors to maximise usable area
12- Linear and modern kitchen units made with recycled material
13- Openable tall sliding doors to create open-space when needed
14- Bifold full-height doors to bring the outside in and viceversa
15- Storage system to maximise space
16- Full-height storage for coats, boots and umbrellas
17- Dual-flush WC to control water usage
18- Bidet
19- Shower over bath
20- Ground source heating pump
21- Rainwater harvesting tank
22- Glass door to bring extra light in
23- Cambridge white brick. Traditional brick construction method to generate work locally and not overseas.
24- Bike stands+locking system fixed and secured to the internal wall
25- Bin covered area secured by metal sliding doors to locate recycling storage system
26- Hard-surfaced area for easy bin-wheeling and garden machinery transport
27- LED dimmable spotlights on sensors
28- LED outdoor low level lights on sensors
29- Underfloor heating system
30- Stone plinth/basement to strenght edifice
31- Walkable terrace to relax/lounge accessible from each bedroom
32- Windows with incorporated mechanical blinds to shade/blackout
33- Water feature similar to a natural pond which incorporates wet elements into every garden
34- Pedestrian walkaway over water feature linking all adjacent houses
35- Local wildlife populating back gardens maintaining the natural enviroment

1/2 draWING architecture design competition _ Semi detached house 4 bedroom, 3 storey_ 130sqm



perspective
second floor

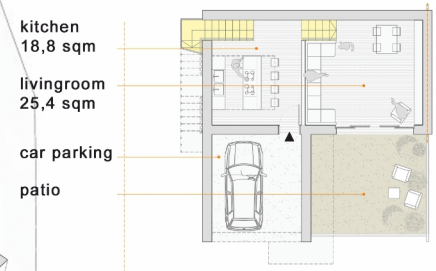


perspective
first floor

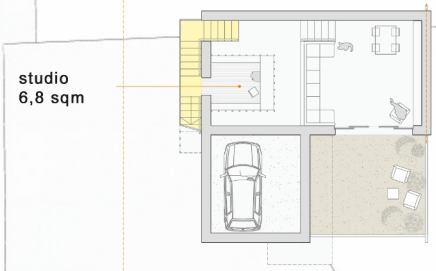
SPACIAL EXPERIENCE

The living and reading rooms are closely related to the open space, and each one is set at an own level ,enhancing its importance.
The three-stories stairs, possibly a disadvantage in a compact house, become an edge between private and public space, giving the occasion to experience a walk-through the different spatial feelings that the building and the neighborhood offer, and represents a strong formal feature wrapping the façade.

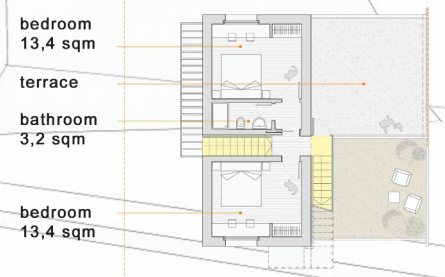
A-A'
facade sketch
scale 1:100



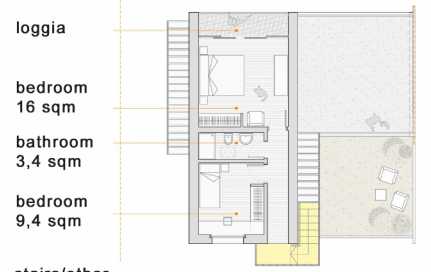
Ground floor
scale 1:200



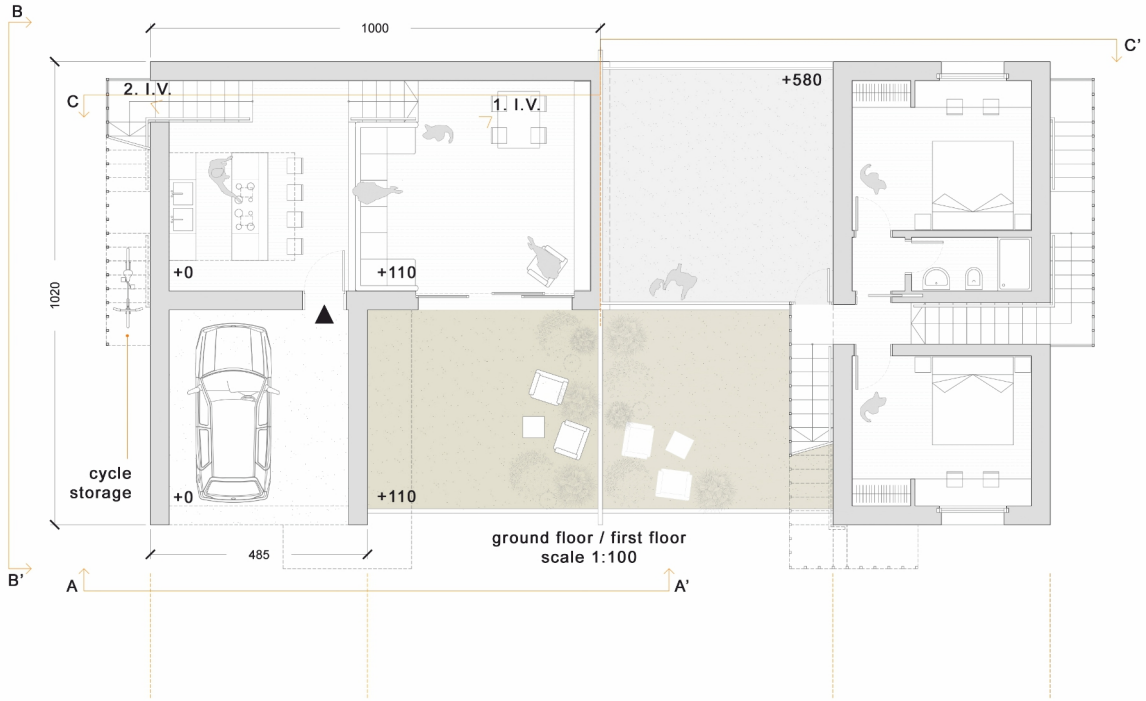
Studio floor
scale 1:200



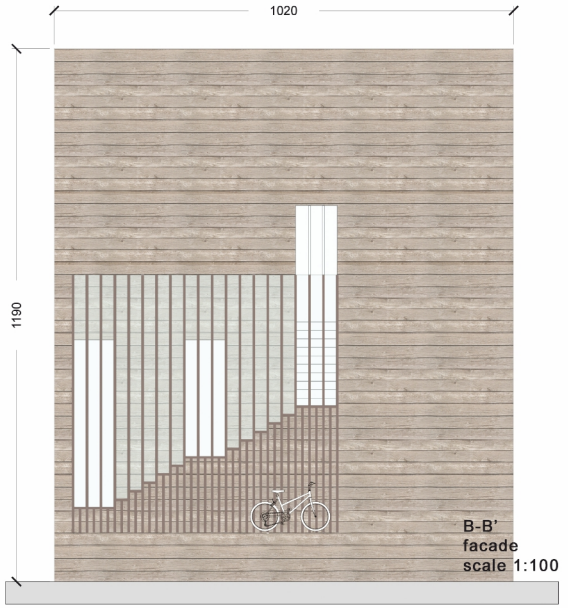
First floor
scale 1:200



Second floor
scale 1:200



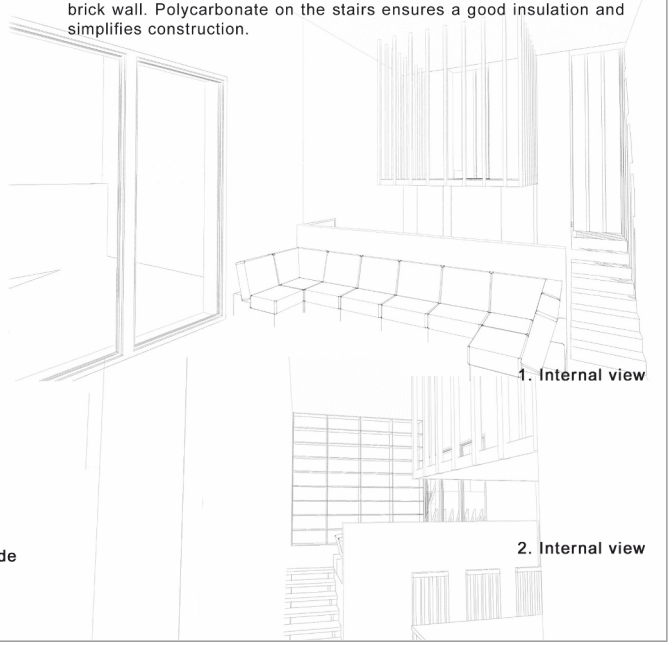
ground floor / first floor
scale 1:100



B-B'
facade
scale 1:100

MATERIALS Timber is used as a load-bearing material to improve insulation and contain cost and environmental impact and as it is also used as a finish to interact with the local tradition without imitating it. The curtain wall systems allows to have better performance than a brick wall. Polycarbonate on the stairs ensures a good insulation and simplifies construction.

C-C'
section / facade
scale 1:100



1. Internal view

2. Internal view

Type 5

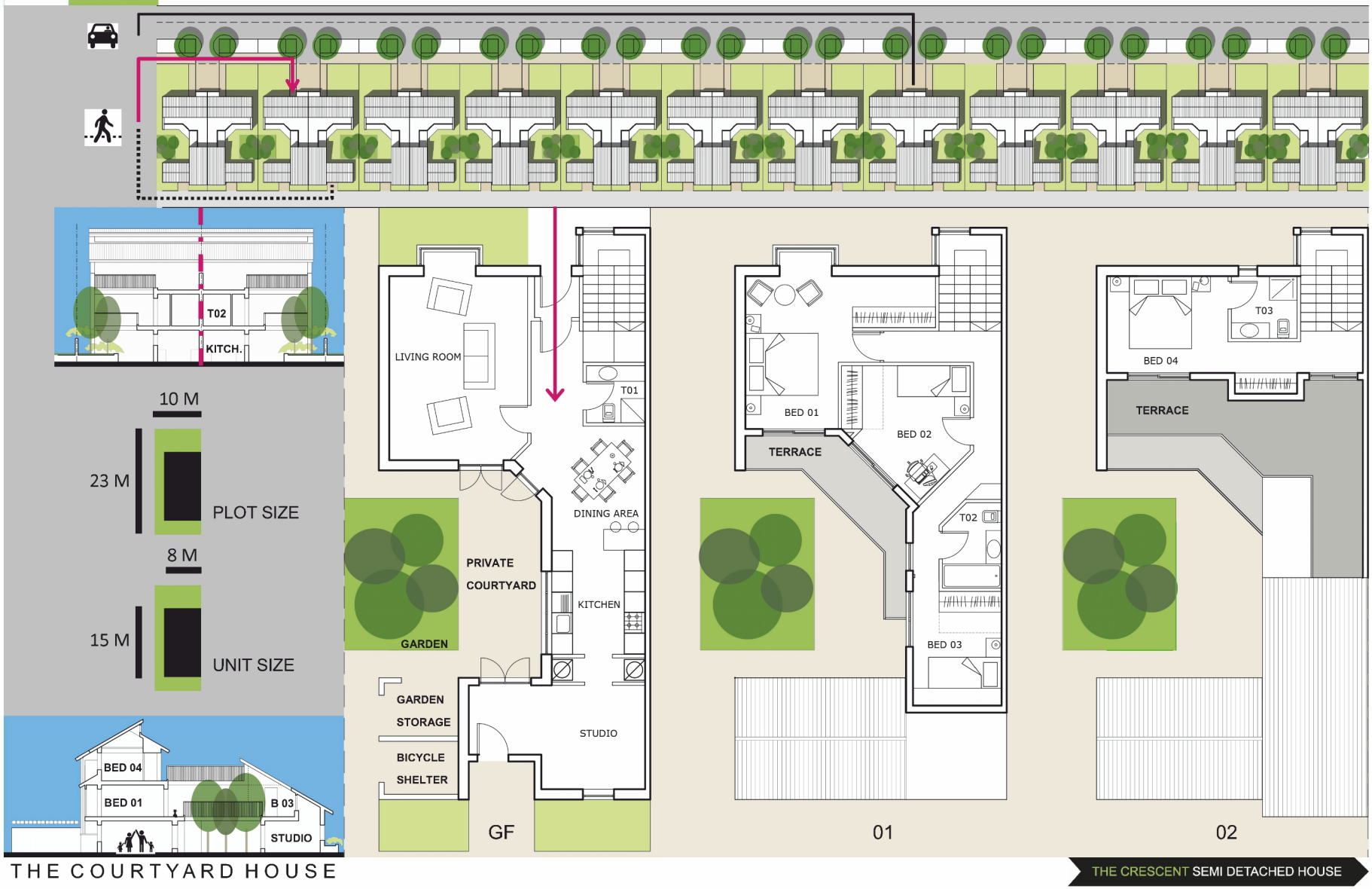
THE CRESCENT SEMI DETACHED HOUSE

THE COURTYARD HOUSE

Drawing

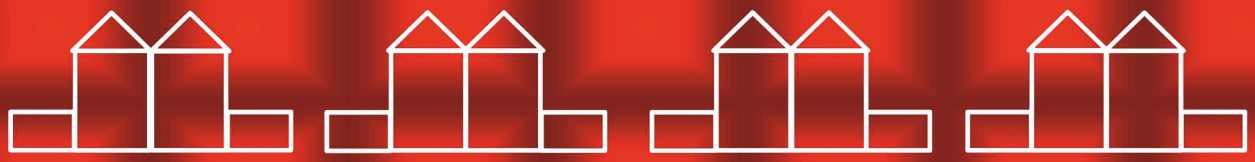
DraWing

Type 5



THE COURTYARD HOUSE

THE CRESCENT SEMI DETACHED HOUSE



House Type 5

Semi detached house: 4 bedroom, 3 storey 125-131.25sqm GIA (10-12m plot width including on plot parking)

CLONE ZONE

"75% of people would not want to live in speculative housing built in the last 10 years"

source: 2010 YouGov public Poll for the RIBA

New Housing Rating:

29% poor	53% average	18% good

source: Commission for Architecture and the Built environment - Housing Audits 2005 and 2007

The essence of Cambridge is:

*"advancement by discovery and innovation through **experimentation**"*

afford to take RISK – allow for FAILURE – learn from MISTAKE – nurture ADVANCEMENT

Britain's Empty Homes: 2011 Census
(homes with no usual residents)

Cambridge	2,121
East of England	112,463
United Kingdom	980,729

provide 100 affordable plots – invite 100 individual clients – appoint 100 Cambridge architects
employ 100 local contractors – build 100 personal homes

HOME ZONE

Top 10 UK house builders 2012: Housebuilder Oct 2013
(by no. of units):

Barratt	12,857	Bellway	5,226
SELF BUILD	**10,940**	Galliford Try	3,039
Taylor Wimpey	10,886	Redrow	2,458
Persimmon	9,903	Bovis	2,355
Berkley Group	3,565	Crest Nicholson	1,882

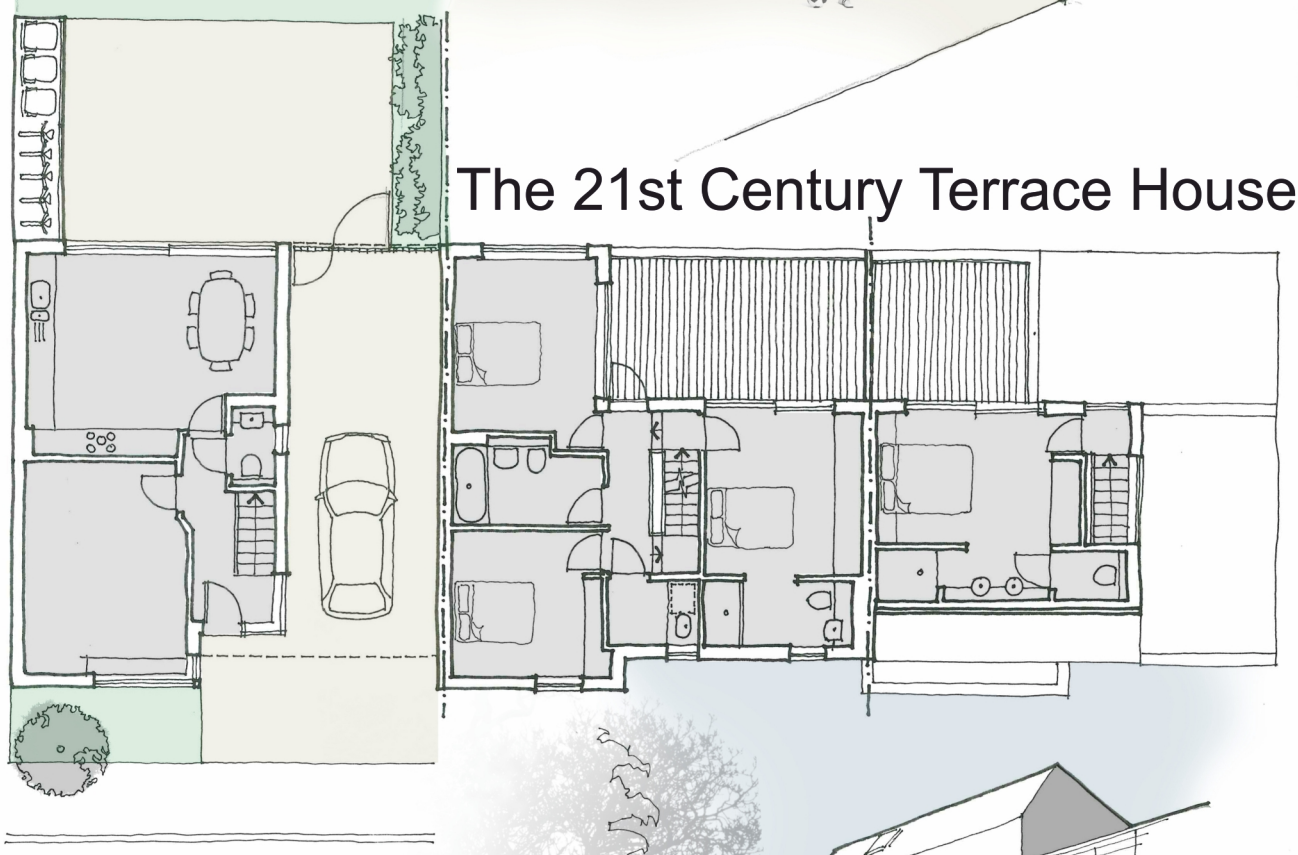
analyse the results – make adjustments – continue forward

HOMES not HOUSES

*let the people build **their** future and create **their** community*

ENABLE INGENUITY TO FLOURISH

The 21st Century Terrace House

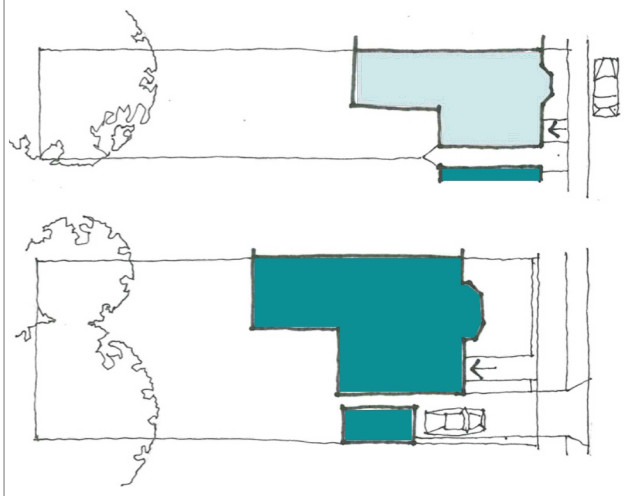


4 Bedroom, 3 Storey
Total Area 129sqm

Terraced, Semi or Link Detached

S

The 21st Century Terrace House

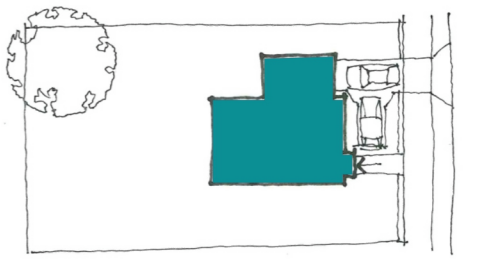


The Traditional Terraced House and Semi Detached produce the best neighbourhoods, which are:

- Compact pedestrian friendly places
- Animated and well articulated streets
- Front gardens green the street and aid privacy
- Bay windows provide beneficial overlooking
- Deep back gardens provide green space large enough for mature trees and nature corridors

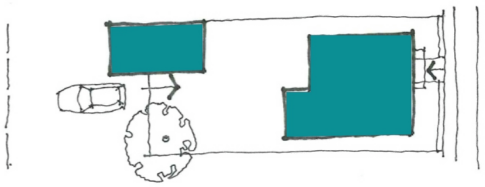
BUT

- Are not designed for cars



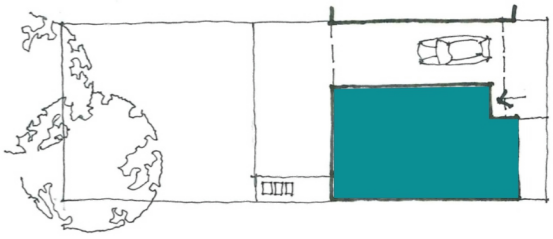
70's & 80's Suburbia is:

- Too spread out
- Car based, which creates ring road tin shed cities
- Scale of garage door dominates entrance
- Garage used for storage & cars clutter frontage



90's Suburbia :

- Rear parking: back door becomes main entrance
- Front door is unused, street life diminished
- Double the vehicle infrastructure



The 21st Century Terraced House is:

- Compact pedestrian friendly places
- Front gardens to green the street and aid privacy
- Plot wide enough for front room overlooking street
- Back to back gardens provide nature corridors
- Car in side passage avoids back entrance
- Easy bins & bikes access - no alleyways
- Efficient road layout
- Open passage avoids use of parking space as store
- Views through demarcate units within row

SEMI-DETACHED HOUSE:

3 BEDROOM 2 STOREY 110-115SQM GIA

19 Richard Carter Architect RIBA (Pollard Thomas Edwards)

Like my very good friend the barrister, the city of Cambridge represents to me the perfect poise of wit and intellect; an encyclopaedic understanding of both Ancient and Modern; it represents a paragon of well-travelled, respected and self confident Englishness to the world at large.

20 Charlotte Wrigglesworth

Cambridge is a relatively new place for me. My mother moved here as a widow looking for somewhere to base herself not too far from her three children, who all live in different cities. She provides the family base. We visit to relax away from our busy lives. Therefore, Cambridge has been adopted as our home.

It was a pleasant surprise to discover this historical but also accessible city. The atmosphere is relaxed yet intellectual and stimulating. This competition seemed the perfect opportunity to put into practice some of the ideas inspired from my observations and experiences in Cambridge.

21 HLM Architects

As lead masterplanner for the Cambridge Southern Fringe expansion, a significant knowledge was gained of the Cambridge context. Many years were spent conceptualising, planning and studying the wider development impact on Cambridge, where exhaustive studies on typology of homes were included in the Design Codes for this project.

Now leading our own team on WING, the Cambridge buzz has become part of the team's design repertoire. Having presented to the council, the many forward thinking committees, action groups and societies that make up the social fabric of Cambridge, puts us in a suitable position to undertake this commission.

22 Once Architecture

Located in central Cambridge, Once Architecture takes an independent and innovative approach to high quality design. The flexibility of our working style, coupled with our extensive knowledge of Cambridge, allows each project to flourish over time, either through close design development with our client or in the leadership of a design team drawing on a range of professional knowledge. Expertise in sustainable building methods and renewable energies underpins our strong design concepts. We promote the latest, most efficient developments in sustainable architecture to best complement the budget and ambition of every project.

23 Ashley Courtney RIBA AABC

I have been an architect in Cambridge for fifteen years.

The thing that I love most is the quality and diversity of traditional craftsmanship - and we have lost that today. I also admire traditional forms, massing, and scale, and feel these attributes still have relevance.

We still use traditional materials such as brick and tiles, but use them in such a debased way - they come from such rich traditions. Heroes of mine, such as Baillee Scott, understood this, and whilst his buildings may not strictly follow a Cambridge vernacular, the quality of his buildings stands out and comfortably fits in.

24 Archipelago Architects

A battered orange-covered book found on my grandparent's bookshelf called 'Cambridge new architecture' sparked my interest in architecture as a teenager growing up in Cambridge. The uncompromising forms and tough materials of The History Library and nearby Harvey Court -and other post-war projects from this time -seemed very precisely scaled and cohesive. The ensemble of terraces and green space at Parker's Piece or Jesus Green, as well as the qualities of the landscape around; the Gog-Magog hills and the Roman Road, as well as the Backs, were taken for granted as a background to the character of the city.

25 Studio HG

My husband grew up in Cambridge, and we have visited the city many times together.

Architecturally it is a very special city, with a mix of innovative University and College buildings together with experimental housing schemes and unique case study houses. It is a city of distinctive materials, gault brickwork, stone detailing, characteristic details.

I find the city of Cambridge inspiring, and its architecture has influenced much of my design work.

26 Mole Architects

The streets in Cambridge we love best have small-scale detail, a good connection between the houses and the streets, and a scale that is intimate as well as feeling quite grand. We've tried to replicate this in our three inter-related submissions. We've re-designed the streets to make places that would be wonderful to live in. All have a view of the park, and are terminated with a sense of grandeur. We've designed a layout that accommodates a few more houses, which might fund a slightly better standard of internal space; more space, and more storage, which is what people want.

27 Saunders Boston

Saunders Boston, (previously James & Bywaters) have been practising Architecture since 1919 and have been based in Cambridge for 50 years. Over this time we have built countless buildings in the city: key examples include; Januarys' offices, Downing Street (1960s) Gilmerton Court, Trumpington Road (1960s) Bridge Street redevelopment (1970s) the Mong Building, Sidney Sussex College (1980s) the Crescent, Storeys Way (1990s) Botanic Garden kiosk (2000s).

The Saunders Boston DraWing Team have all lived and worked in Cambridge, two of the team were born and went to school in the city returning to work here after completing their architectural education.

28 Sarah Wigglesworth Architects

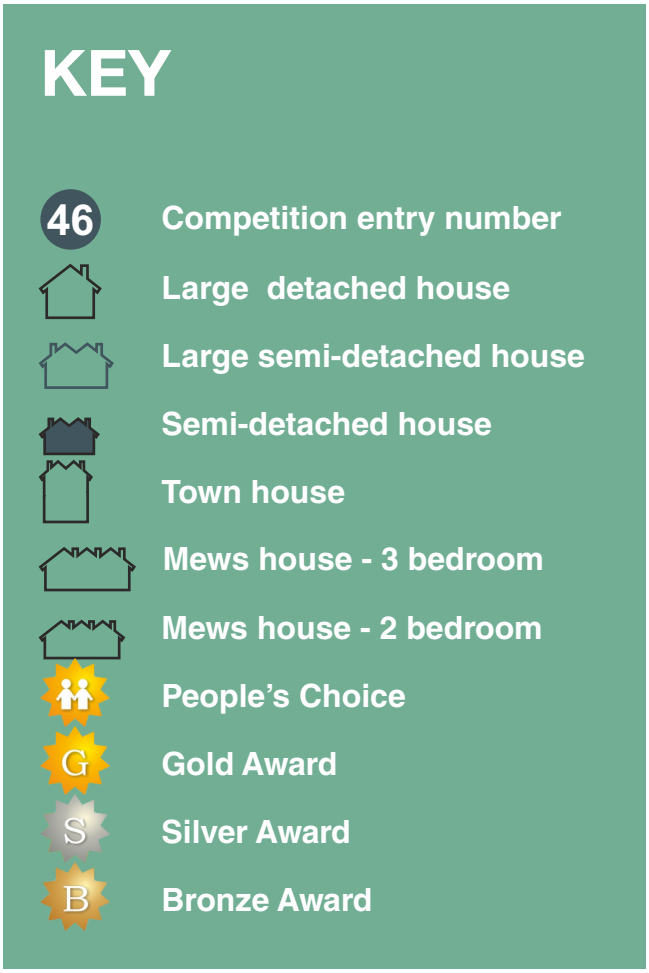
Cambridge feels like a second home to both Sarah Wigglesworth and Eleanor Brough, being the only other place besides London where they have lived. This was for a fond five years as architecture students. The unique variety and quality of the architecture of this city has had a lasting influence on the work of the practice, which has been sensitised to the nuances of place, nature, materials, historic precedent and innovation that has set the pattern for our future work. We are currently working on North West Cambridge for the University and are immersed once again in the city's magic.

29 Mart Barrass Architect (Ltd) Mart Barrass RIBA

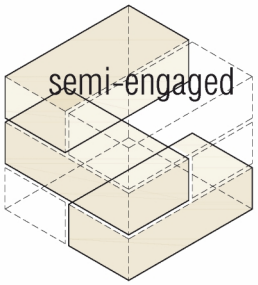
Elected a Chartered Member of the Royal Institute of British Architects in 1996, Mart has lived and worked in Cambridge for the last 15 years, establishing his own practice in 2010 to focus on the design of innovative, intelligent and sustainable habitats. Real life experience of growing up on a hill farm in the Yorkshire Dales, studying in the historic city of Oxford and the planned city of Washington DC., with a number of years working in central London and the Alps, inform his outlook and insight into the challenges and benefits of both rural and urban living.

30 MWSOGL

Our inspiration for this project came from observing the act of selling home-made produce in front gardens on roads in the Cambridgeshire countryside. In parallel, we have always found the predominance of cycling in Cambridge fascinating, and the spirit of the inhabitants of the city to collectively embrace an alternate mode of transport. Based on this, we were interested in creating a network where each individual unit contributes to a whole – thus each house has been given the opportunity to grow plants and food which, collectively, creates a network of exchange of physical goods and social interactions.



semi-



is a somewhat baroque proposition; two separate families share lives intertwined within the volumes of each perfectly tailored cube of pale Cambridge brick.

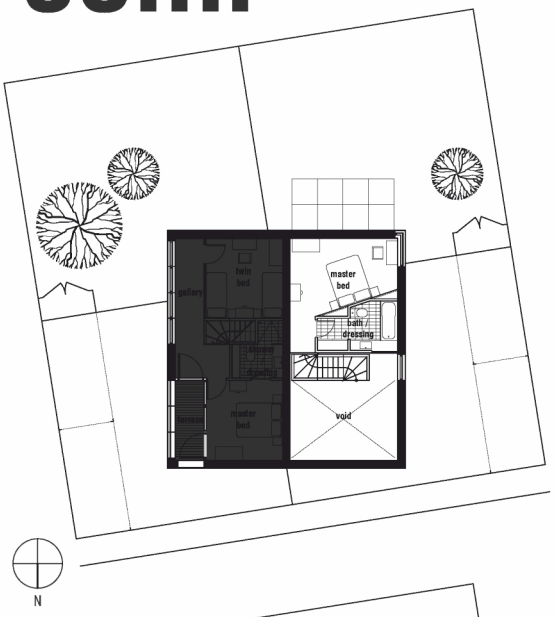
This is an attempt to redefine a very English form of neighbourliness for the 21st century.

The semi-detached house is a well-loved model which carries with it familiar associations and relationships which encourage both sociability and neighbourliness, whilst respecting privacy and individually - a unique kind of 'closeness-and-apartness' which semi-engaged seeks to reinvigorate.

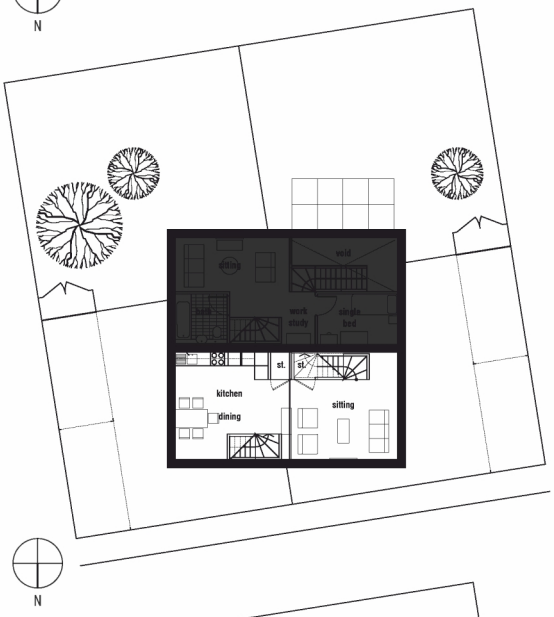
Contemporary construction technology achieves new levels of performance for acoustic, thermal and structural separation between dwellings; semi-engaged takes this as a departure point for exploring exciting new spatial configurations made possible by connecting and combining party volumes in a new fashion.

Each 10x10x10m volume contains a pair of dissimilar 3 bed 5 person homes of 112.5m² intertwined over 2.5 storeys by inter-connecting volumes of one half of one 45m² floor plate both horizontally and vertically introducing a heretofore unknown generosity of space and light into the domestic drama

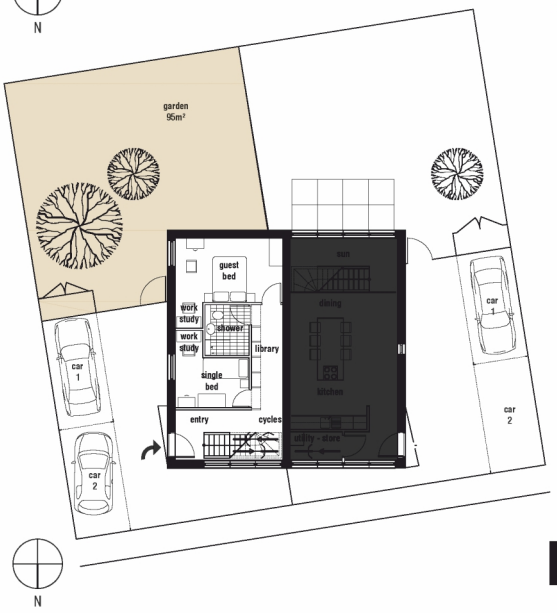
The two homes presented: L and R are example iterations of multiple potential layouts made possible by employing a highly flexible modular approach to space planning with enormous potential for customisation and adaptation to suit the diverse needs and tastes of future residents.



L2

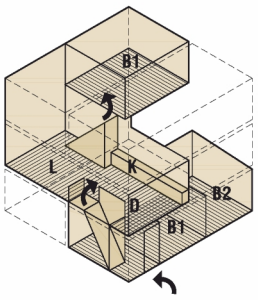


L1



L0

cutaway view of House R showing interconnecting volumes



House L is designed with a grown family in mind; the master bed is remotely positioned at the very top of the house while entry level secondary bedrooms offer a degree of independence : the two distinct spheres meeting in a grand central family space.

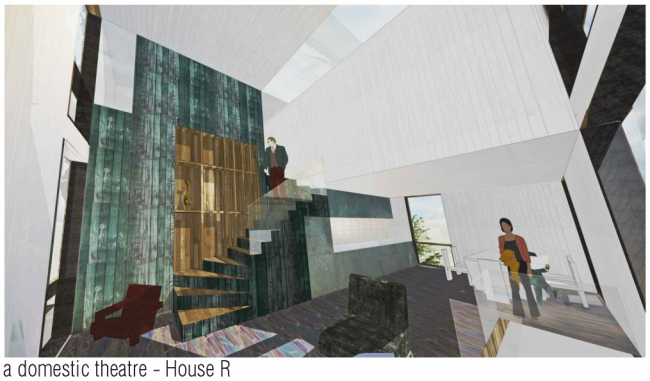
engaged.

lean & spare - space and void respect human proportion

external

Following well-established precedent, plots are placed at c.10m intervals along the access road - however - each home is inclined at a mildly eccentric 9° to the street to introduce a gentle informality to relations front and back. Each plot simply contains a hard paved forecourt with parking for two cars and bin store with garden plot to the rear.

the mathematically proportioned facades use a single repeating prototype of glazing unit - a tall, generous fixed light panel above a deep sill - a with 9° inclined ventilating panel below to articulate each void.



a domestic theatre - House R

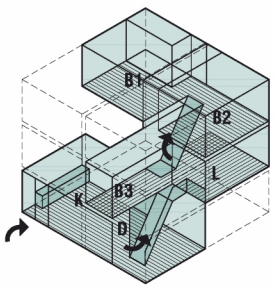
internal

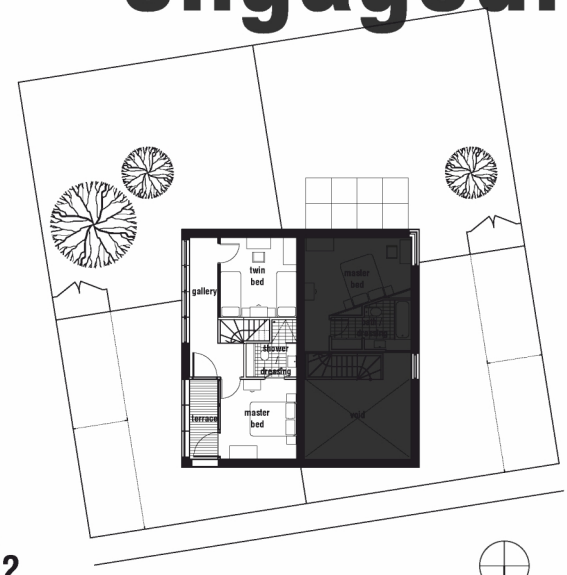
the modern home should be a natural breathing micro-environment -

using high-tech factory production process, engineered timber structural insulated panels will produce a high performance climatic envelope expressed internally with timber laths of lime mortar washed timber paneling in preference to the sterile expanse toxic painted gypsum. Kitchen layouts are compact and laid out in a variety of open-plan configurations preferred by the modern family.

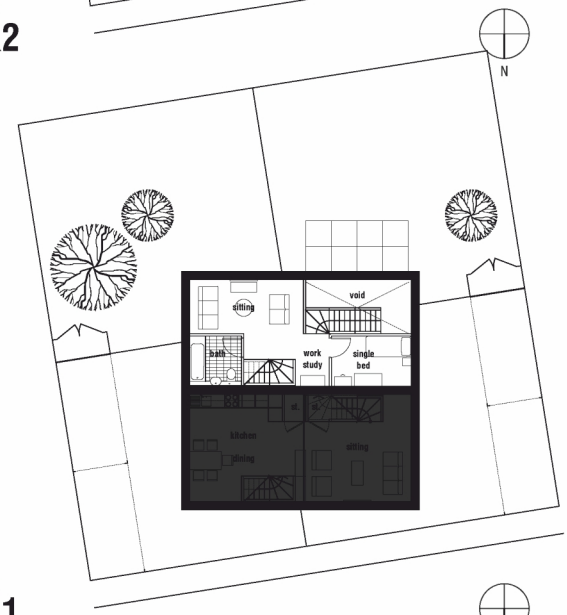
Each and every home features a custom made hardwood stair design to enrich and give a warmth and focus to the home.

House R is intended for a younger family; the 3 bedrooms are together on the two upper floors adjacent to a family bathroom and a living space is distinct from a kitchen room adjacent to the garden double height glazing connecting

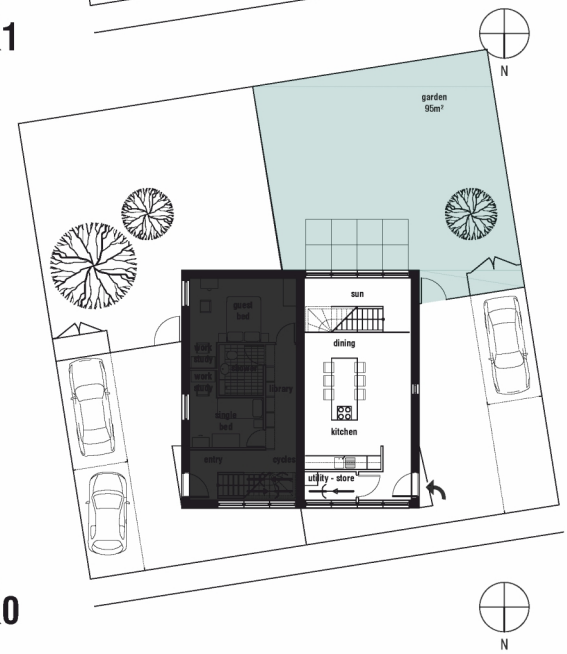




R2



R1



R0

Crystallising Memory

The architecture of Cambridge is dominated by a rich layering of history, with motifs used to demonstrate a building's origin.
This project has been inspired by this idea of motif and also the idea of thresholds, notably experienced in the architecture of the university colleges. The entry gate, formal garden, functional space and landscaping to the rear, adapts itself readily to a domestic setting.

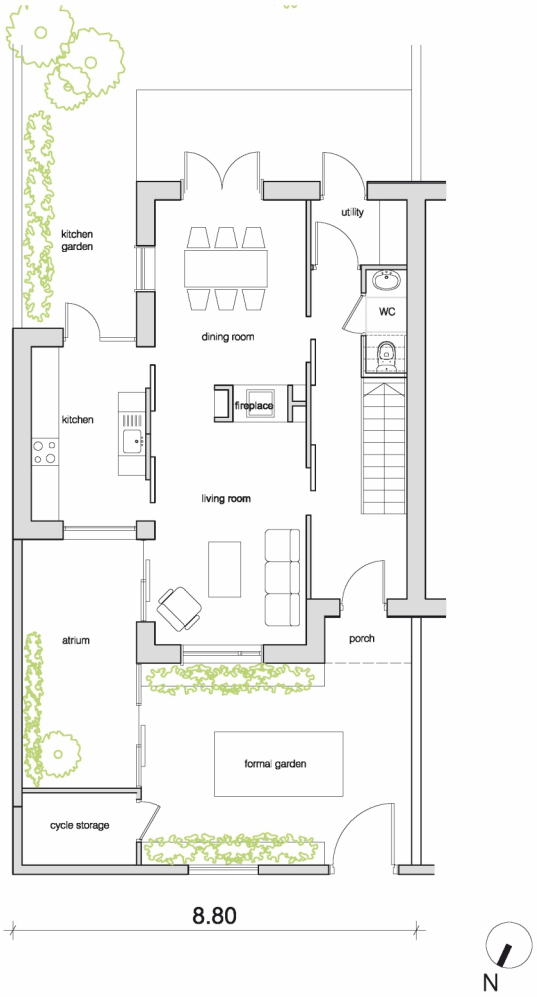
In order to capture the origins of the project, images from Marshall's industrial history are moulded into recycled aluminium panels which are used to create a frontage to the domestic setting. Despite the uniformity of the overall development, each dwelling is personalised by the front façade which crystallises the origin of the project.

Proposed House Location within the Masterplan

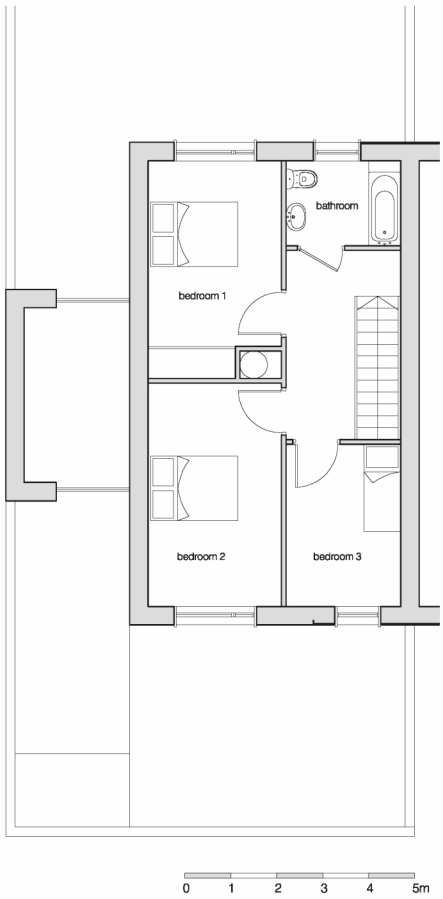
Semi-Detached House, 3 Bedroom, 2 Storey, 115m² GIA

Site Plan

Street Elevation



Ground Floor Plan



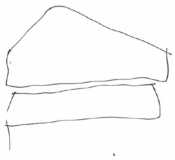
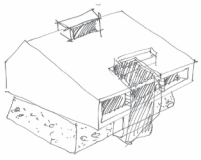
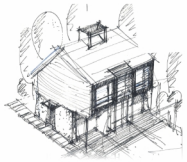
First Floor Plan

Street Perspective

Perspective of the Kitchen

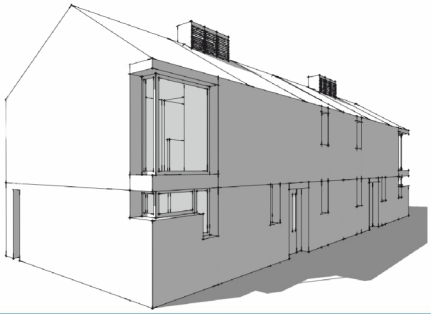
Family Passivhaus - Low Carbon Living

Type 4) Semi-Detached 3-Bed 2-Storey - 114m² low carbon living

CONCEPT DEVELOPMENT

In creating a new family home fitting to Cambridge, its history of innovation through business, industry and education has influenced our approach. Marshalls contribution to serve its clients with advanced technologies, meant we could only look at designing a house that was energy efficient, innovative and fit for purpose. As an accessible low carbon living environment, our concept meets the needs of any families future for the 21st Century.



PASSIVHAUS FOR CAMBRIDGE

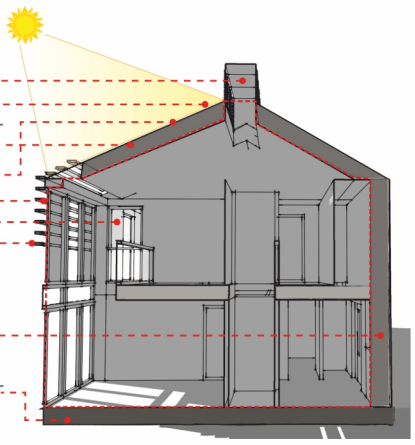
INTERNAL VIEW

SECTION

- Wind catcher / light funnel
- PV panels "C21-Slate"
- External roof construction (U value 0.12 W/m²K), Timber battens, Timber 'I' beam, Warmcell Insulation
- Natural grey slate roof tiles
- Air tightness barrier
- Juliet balcony
- Timber horizontal louvers

- Triple glazed windows (U value 0.8 W/m²K)
- Low level external wall construction (U value 0.15 W/m²K) structural timber frame, Reclaimed stone

- Ground floor (U value 0.15 W/m²K) Floor finish, PFA levelling screed, Insulation, Sub floor, breather membrane

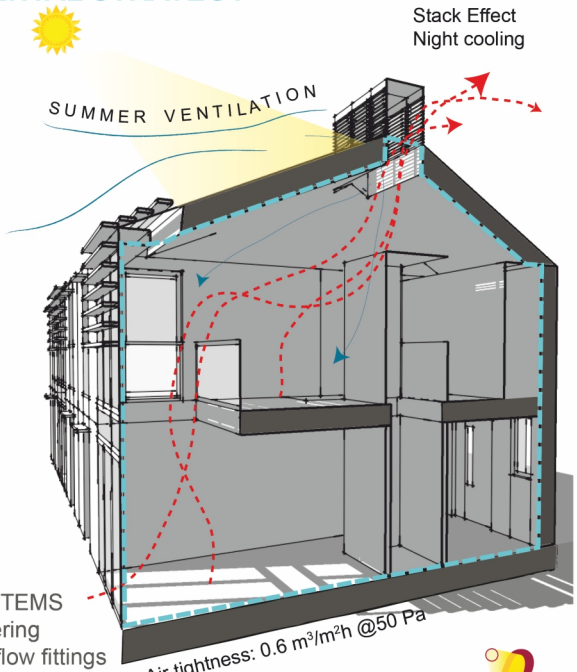


Family Passivhaus - Low Carbon Living

To meet the needs of modern family living in Cambridge, we are proposing a 3-bed semi-detached home that combines contemporary comfort living with extremely low energy consumption and impact to the environment. Designed to achieve the Passivhaus standard, the units feature a south facing double height living space linked to a dining and kitchen area, north facing utility rooms and spaces, a home office/study room on the first floor to minimise travel to work. There exists the flexibility for the maturing family to use the ground floor bedroom space as a private guest bedroom after children have moved out or to segregate it as need be, thanks to a movable partition. Excellent light quality to all accommodation.

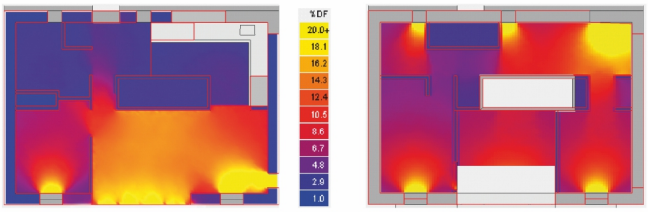
PLANS

ENVIRONMENTAL STRATEGY



ACTIVE SYSTEMS
- Smart Metering
- Low water flow fittings
- Roof mounted PV panles
- MVHR

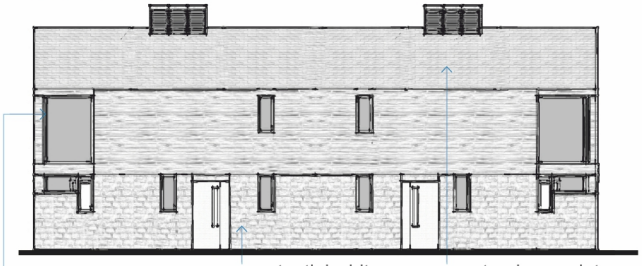
Annual Heat Demand: less than 15 kWh/m²



Daylighting Analysis

ELEVATIONS / MATERIALS

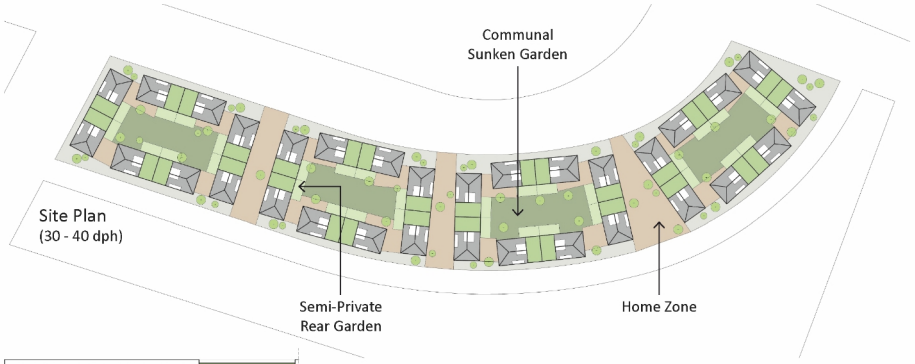
North Elevation

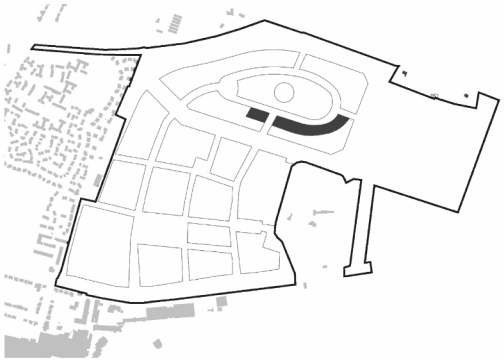


- timber framed triple glazed windows
- potential white render or local stone wall finish
- natural grey slate

South Elevation

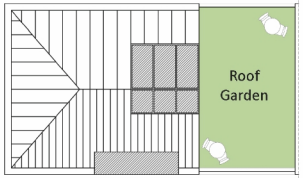
- red cedar timber rain screen horizontal cladding
- PV Panel C21 slate
- horizontal timber louvres



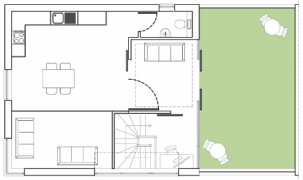

Site Location

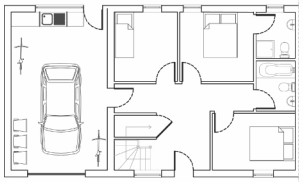
Typical Pre-War Semi

The Laslett House



Roof Plan


First Floor Plan


Ground Floor Plan

House Type CRESCENT & CIRCUS
Semi detached, 3 bed, 2 Storey
House Area 112.0 m²

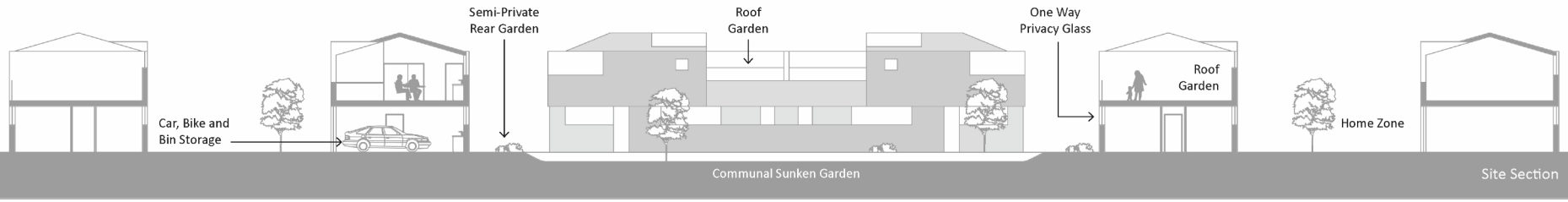
The semi-detached house type for the Crescent and Circus area has been conceived as a contemporary interpretation of the typical Pre-War semi detached house typology that currently exists throughout Cambridge's suburbs. Form and layout is inspired by local examples of modern, suburban dwelling such as The Laslett House on Clarkson Road.

Site arrangement is configured to densify frontage, thus enhancing the street scene and creating a suburban area with a strong sense of place. The design provides privacy from the street and all units are grouped facing inwards, thus creating enclosed communal garden areas. Access routes between house groupings are pedestrian friendly 'home zones'

Internal living areas are open plan and located on the first floor; views down into communal green spaces are maximised. First floor internal space opens out onto a roof garden that offers privacy and enclosure.

Street View

Rear Garden View



Site Section

FRONT ELEVATION

ROAD - WITH ON-STREET PARKING

THE DESIGN

THREE BEDROOM SEMI-DETACHED HOUSE. PLOT WIDTH 9M. G.I.F.A. 114.8 SQM. CEILING HEIGHTS 2.4M. ACCESSIBLE WC 2.2MX1.5M WITH SHOWER INSTALLED TO LIFETIME HOMES STANDARD. CAR PARKING ASSUMED TO BE ON STREET. BUILT TO PASSIVHAUS STANDARDS, WITH WHOLE HOUSE VENTILATION WITH HEAT RECOVERY UNIT, REDUCING ENERGY CONSUMPTION AS THE PRIMARY MOTIVATION. RECYCLABLE MATERIALS AND NATURAL INSULATIONS. AIR-TIGHT TIMBER FRAME CONSTRUCTION BEHIND BRICK OUTER FACING; HYDRAULIC LIME MORTAR, AND HYDRAULIC LIME BREATHABLE GROUND FLOOR SLAB WITH RECYCLED FOAM GLASS INSULATION - ALL TO GIVE A LOWER EMBODIED ENERGY CONSTRUCTION. SOLAR THERMAL PANELS TO ROOF, SUPPLEMENTED BY SMALL GAS BOILER.

APPEARANCE

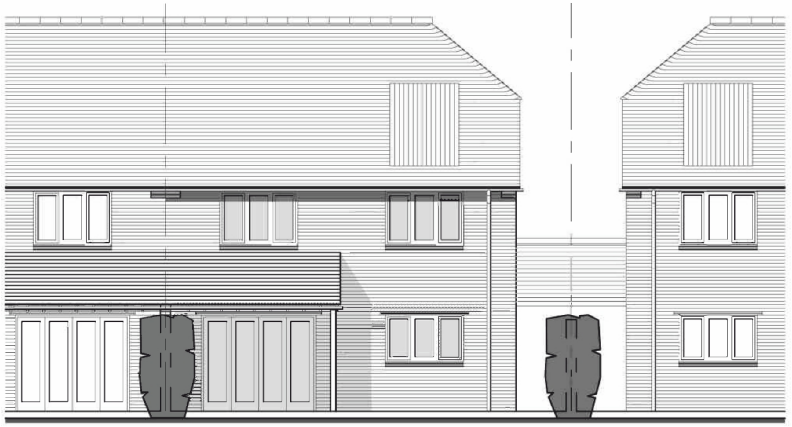
BRICK FACINGS, EITHER BUFF OR SOFT REDS AS LOCALLY SOURCED AS POSSIBLE. ALTERNATIVE CHOICE OF BRICKS WILL HELP TO PROVIDE COMPOSITION IN THE STREET SCENE. TILE CREASING DETAIL TO WINDOW SILLS AND HEADS. BIN AND CYCLE STORE TO HAVE A RENDERED APPEARANCE (OR WEATHERBOARDED) TO GIVE A SENSE OF HIERACHY. RENDERED PANEL TO BAY WINDOW MAY HAVE PARGETTED FEATURE TO ADD DETAIL AND HUMAN SCALE, OR HAVE VERTICAL PLAIN TILING TO GIVE VARIETY.

MAIN ROOF PITCH AT 40 DEGREES TO GIVE OPPORTUNITY OF EXTENDING EASILY INTO ROOF, WITH HALF-HIPPED GABLE. ROOF TILES TO EXHIBIT A VARIABLE GAUGE, GRANNY BONNET HIP TILES, AND LACED VALLEYS. VISIBLE LEAD TO BE KEPT TO A MINIMUM. VERTICAL PLAIN TILING TO GABLES TO ADD TEXTURAL VARIETY, BUT THE BAY GABLE MAY EQUALLY BE UNTREATED WEATHERBOARDING OR RENDERED, OR INDEED HIPPED TO GIVE DIVERSITY TO URBAN COMPOSITION AND VISUAL INTEREST.

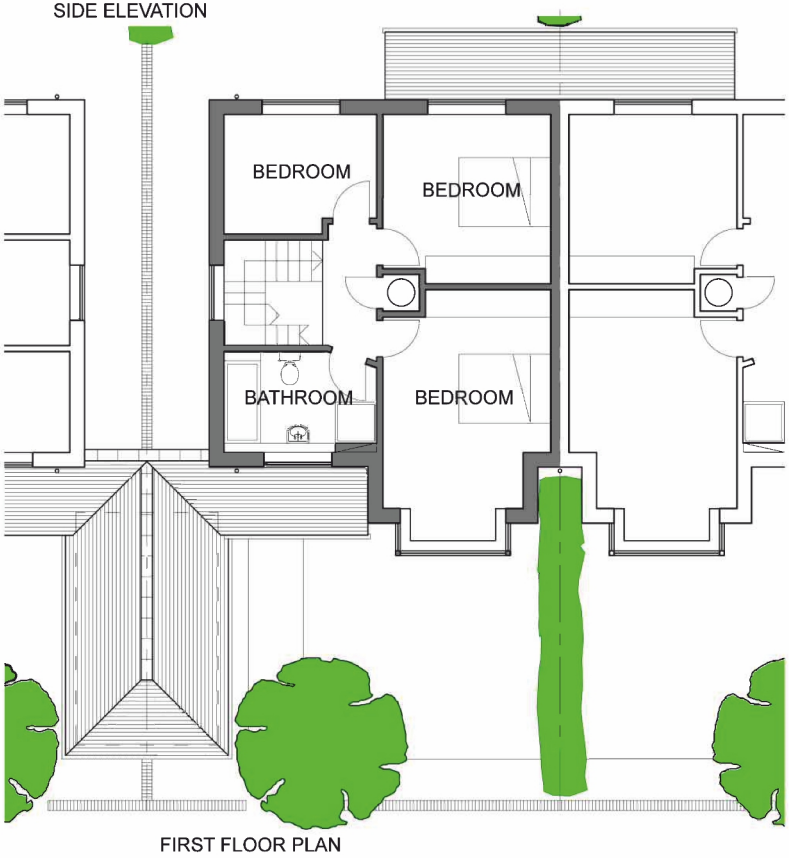
TRIPLE GLAZED WINDOWS, NOTING CENTRAL PANE TO FRONT DOOR AND SIDE-LIGHT MAY HAVE A STAINED GLASS PANELTO GIVE DECORATION AND PRIVACY WITHOUT COMPROMISING THERMAL STANDARDS TOO MUCH. DECORATIVE ETCHED GLASS TO STAIR WINDOW, TO PROVIDE PRIVACY.

JOINERY TO BE PAINTED. CAST IRON RAINWATER GOODS PAINTED BLACK. EVERY FRONT GARDEN TO HAVE A FRUIT TREE. LOW BRICK WALL TO PAVEMENT, WITH OAK GATE.

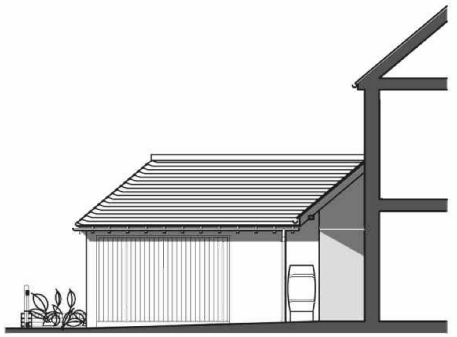
SIDE ELEVATION



REAR ELEVATION



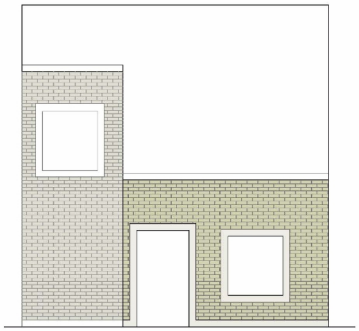
FIRST FLOOR PLAN



CYCLE AND BIN STORE ELEVATION

1

2



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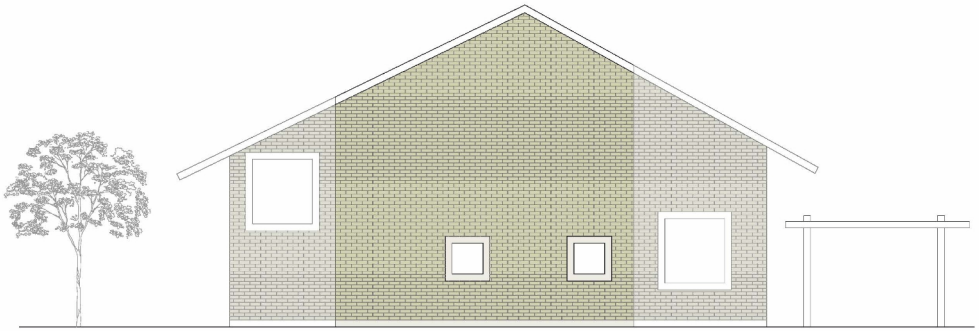

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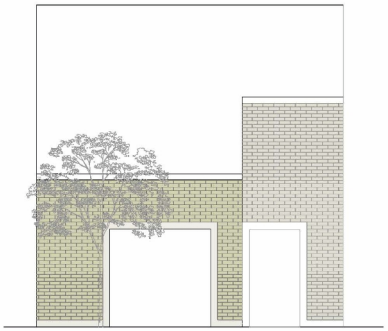
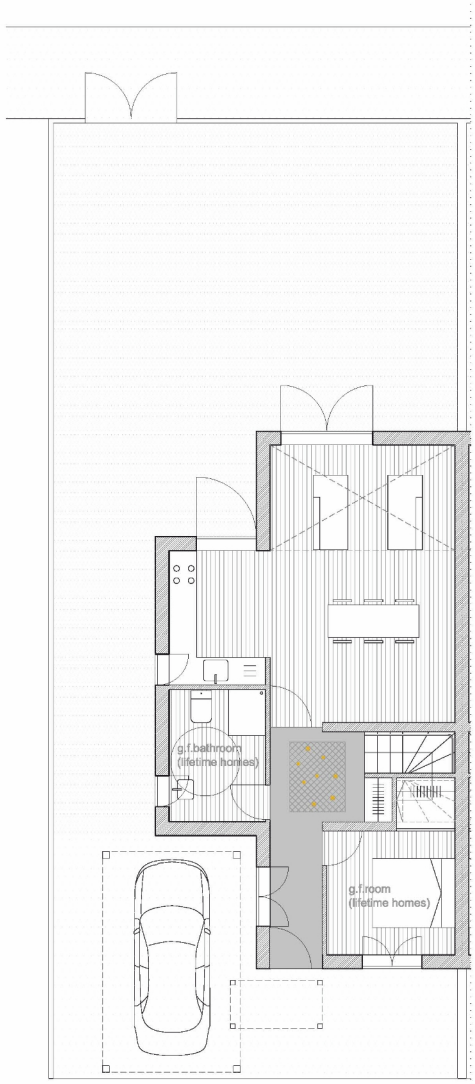


5

0 1 5

SEMIDETACHED HOUSE 1 111sqm

1. combination of dweling types 1:1000
2. model view
3,4,5. elevations 1:100



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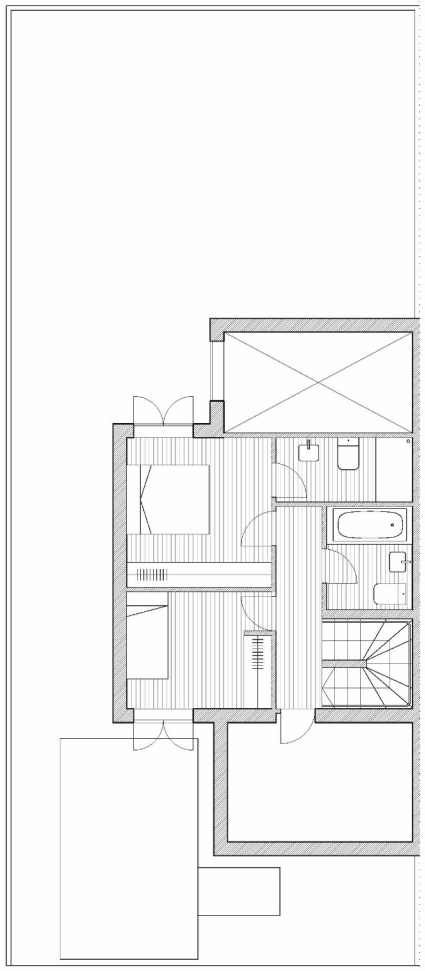

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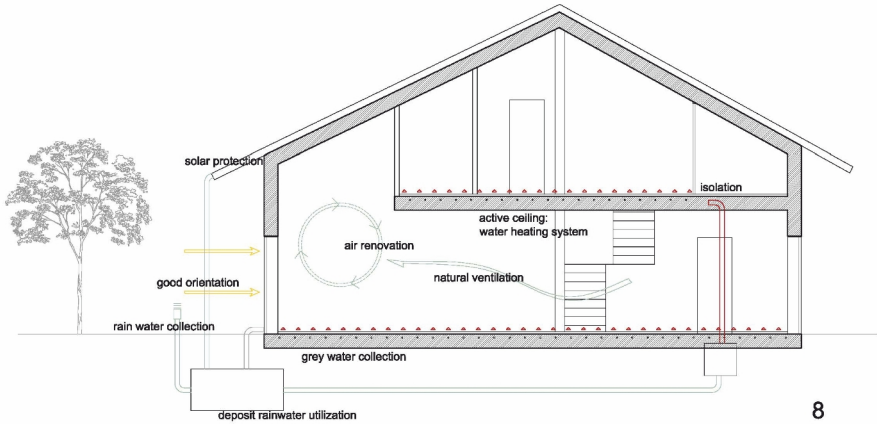
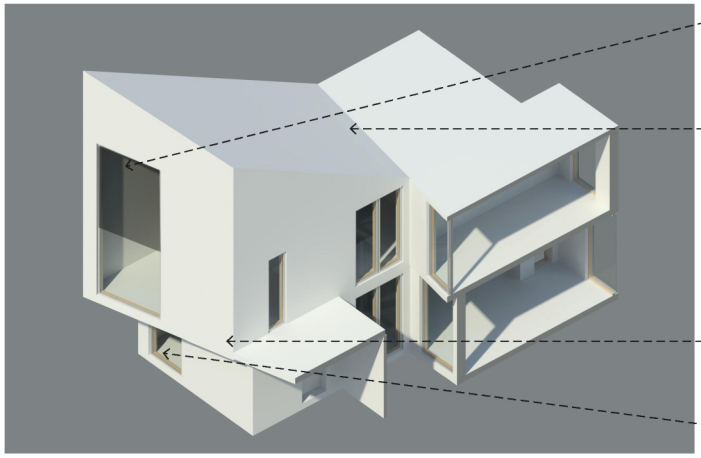


8

0 1 5

SEMIDETACHED HOUSE 1 111sqm
6. ground floor 1:100
7. first floor 1:100
8.section 1:100

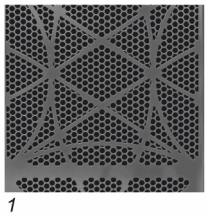


Perforated metal screens with a pattern that can be designed in line with site wide art strategy

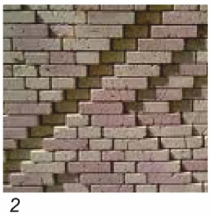
Slope of roof designed to optimum angle for roof mounted photo voltaics and solar thermal - which could respond to the orientation of sun for each plot around the crescent creating a graded array of roofs

Cambridge brick incorporating decorative brick details

Triple glazed windows



1



2

3

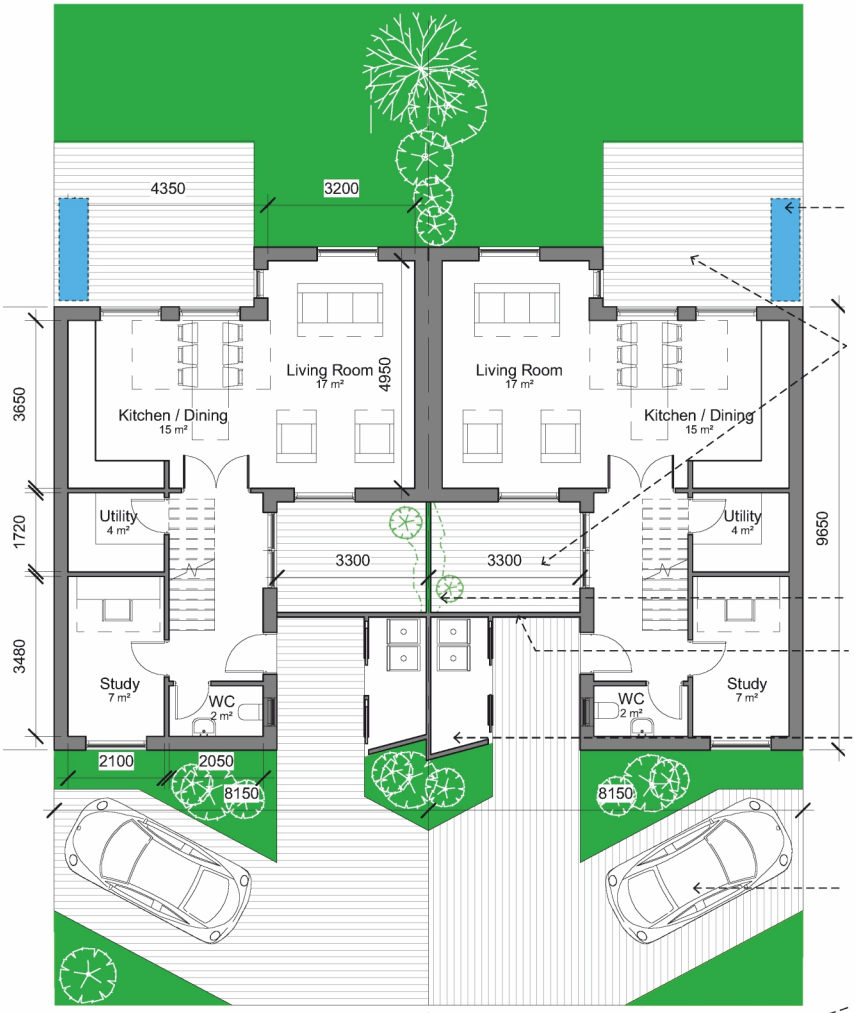
1. Perforated metal details

2. Brick

3. Biodiverse roof and living walls

3 BEDROOM SEMI-DETACHED

115 sqm GIA comprising
GF - 59.7 sqm
FF - 55.3 sqm



Integrated garden bench furniture / rainwater collection tank fed via roof downpipe

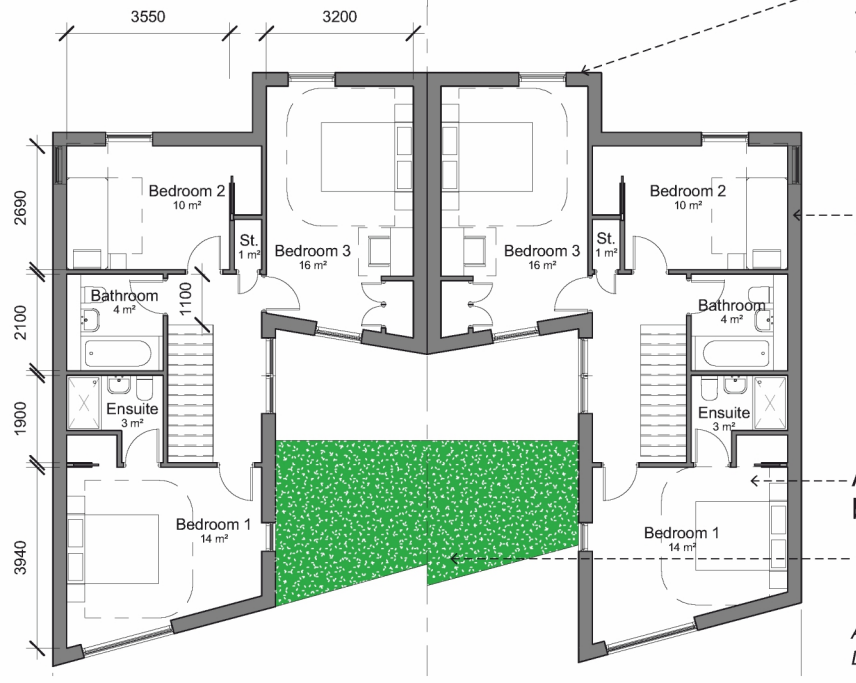
Outdoor terraces

Living Wall between dwellings

Perforated metal privacy screen to courtyard

Bin Store and Cycles with perforated metal finish

Car parking



Typically South / South East facing in masterplan - maximise glazing in GF and FF to allow passive solar gain

Highly insulated masonry wall to passive house standards

All Bedrooms dual aspect with built in storage

Biodiverse Roof

All room sizes follow or exceed London Housing Design minimums

Semi Detached House SD4/01

House type within new urban block plan

Location within masterplan

Cambridge precedent

TRADITIONAL HOUSES WITH A GENEROUS FEEL ON MODEST PLOTS; BAY WINDOWS TO ANIMATE THE STREET

* REAL STREETS
  - Car Parking off the street- no car courts!
  - Living rooms overlooking street
  - Front gardens to all houses

* INCREASED DENSITY
  - 15 % extra houses = 15 % extra quality

* LIVE WITH THE SUN AND TREES
  - Streets & houses orientated for solar gain
  - Streets terminate in view of the park

* FUTURE FLEXIBILITY
  - Smaller houses designed for future additions

*PRIVATE GARDENS
  - Houses designed to respect privacy and prevent overlooking

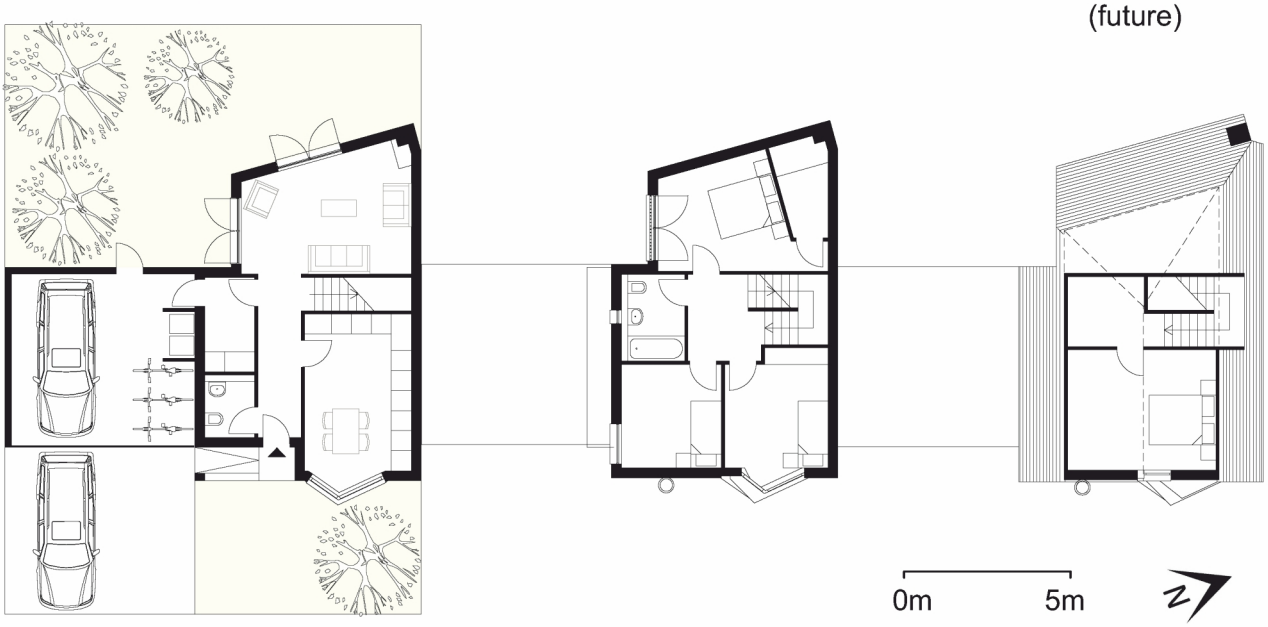
B

SD4/02 Type 4 : 2 Storey 3 Bed

Ground Floor

First Floor

Second Floor (future)



Front Elevation

Side Elevation

102 sqm GIA + 22sqm future attic

12.5m frontage

East- west orientation to allow sun all day

Southerly orientation for bedroom and living room onto rear garden

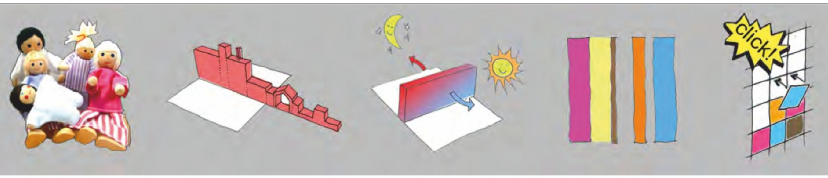
Brick, slate, and stained timber to entrances

Garage and off street parking

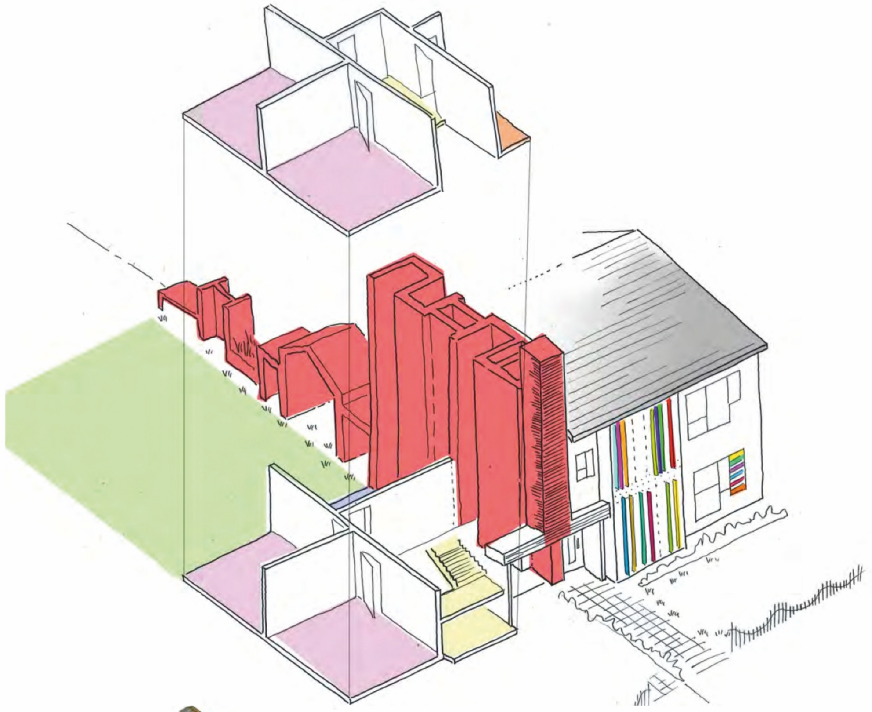
Integral bin and bike store accessed internally

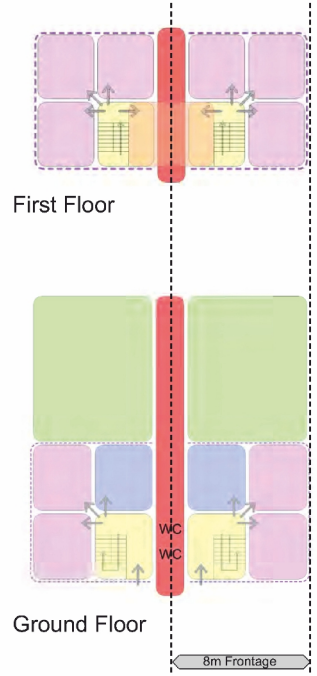
Future attic conversion

House Type - Semi-Detached 3 Bed

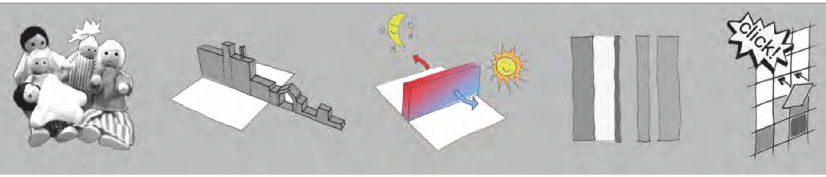


Adaptable facade
Shared boundary wall
Flexible room
Circulation core
Exterior space
Kitchen
Family bathroom

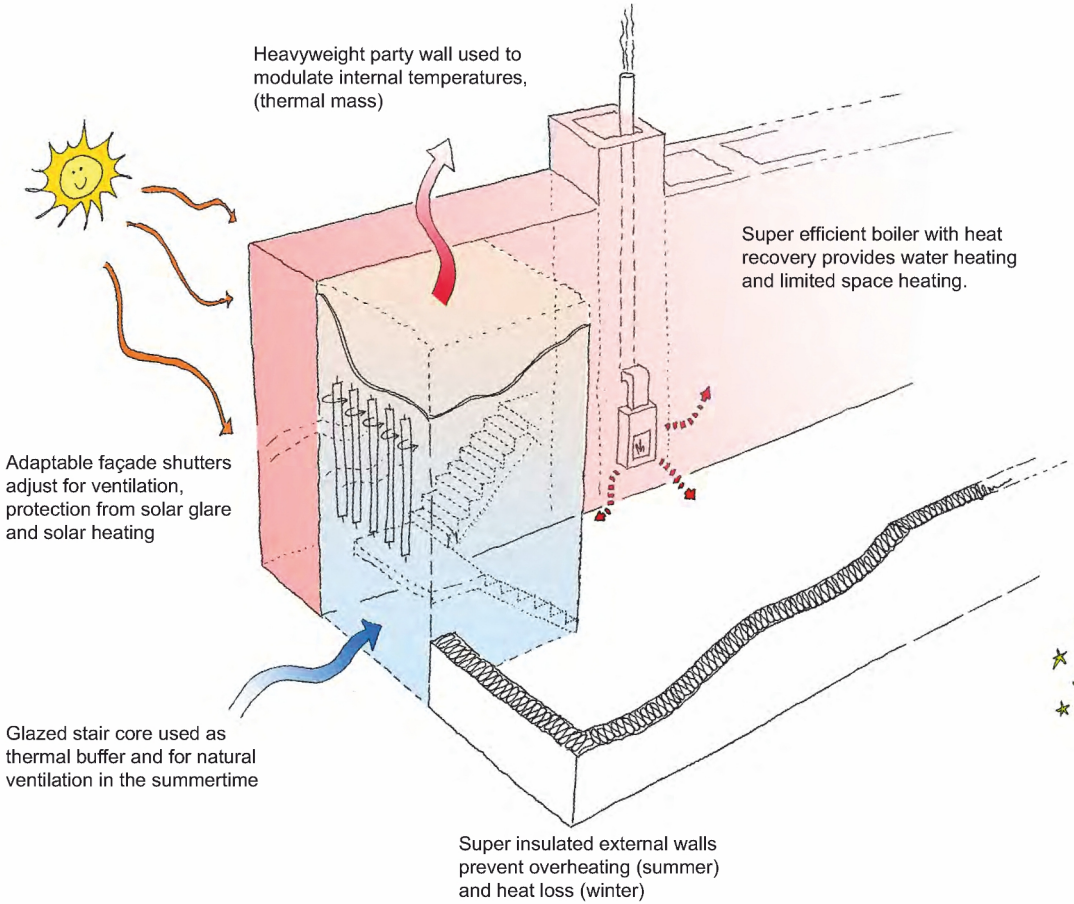




Environmental - A Snug, Simple Home



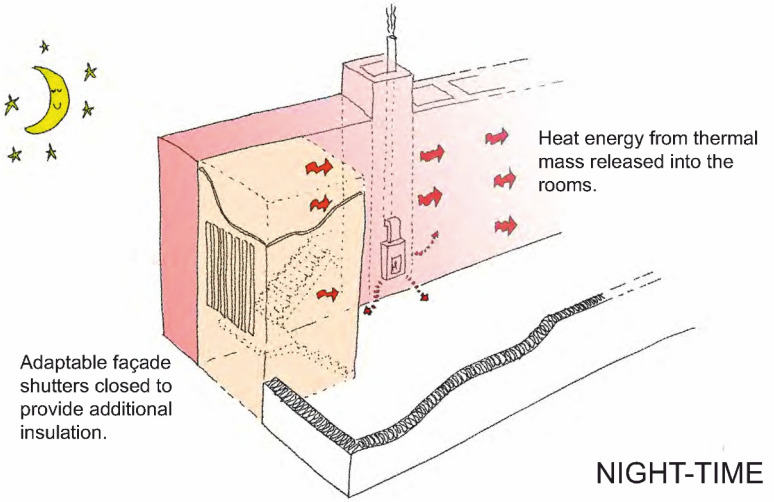
DAYTIME



Cambridge has been at the forefront of environment design and science for many years, and its residents expect their houses to be conformable and easy to use. Our houses have been carefully designed to maximise the temperate sheltered Cambridge climate. Complicated technological installations have been avoided to ensure the houses can be easily used and understood by their occupants.

The central shared wall between the houses will be of a heavyweight construction allowing it to be used as a thermal store moderating the internal temperature of the houses. Super insulated external walls designed with thermal breaks will prevent heat loss in the winter and overheating in the summer.

Shutters on the adaptable façade can be manually adjusted by the house occupants to provide ventilation whilst maintaining security, protection from solar glare or heat loss during cold weather.

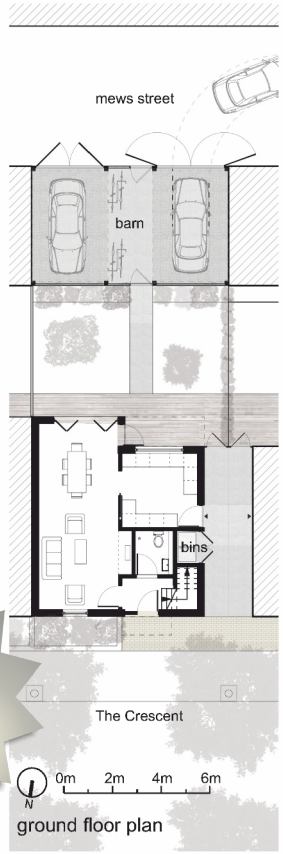


NIGHT-TIME

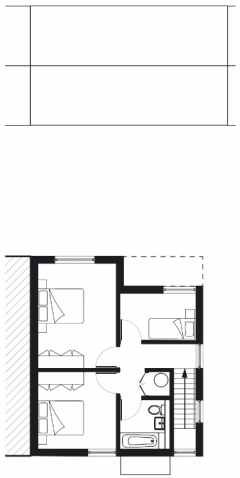
house type 4

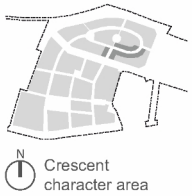
Self Build Home

the simple, sustainable self-build home that's yours to customise from under £100k

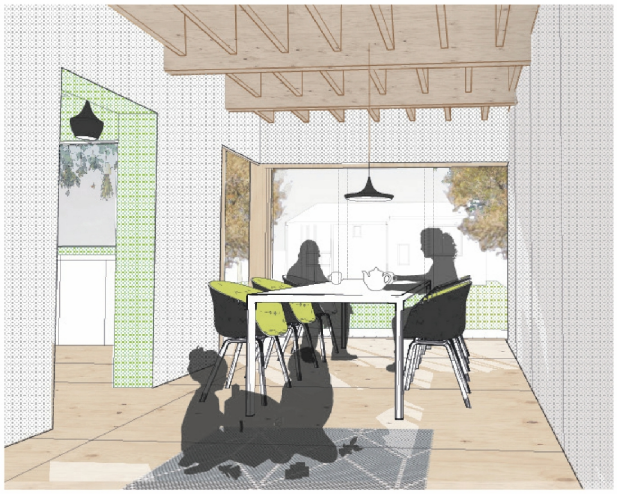


key facts	
GIA	110sqm
frontage	7.5+1.5m
bedrooms	3
storeys	2





The house ages gracefully amongst the maturing trees of The Crescent



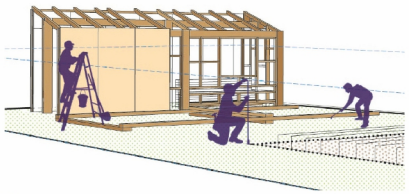
Sunlit family living space with views to The Crescent

- A spacious, light and affordable family home set along the tree-lined streets of the leafy Crescent
- Simple to build, economical to run and open to all: your family's very own sustainable project
- Fenland-inspired black timber and local lime render age gracefully amongst maturing avenue trees
- Contemporary design using local materials marks the transition from Wing's vibrant new urban centre to the Fens

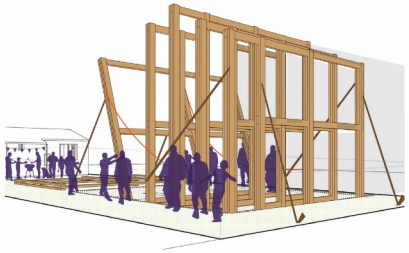
Examples of contemporary Fenland architecture

house type 4

simple self-build process

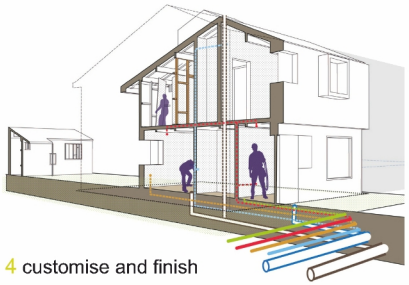


1 practice your skills on the parking barn, which can be a tool shed during the build



2 make an occasion of raising the frame

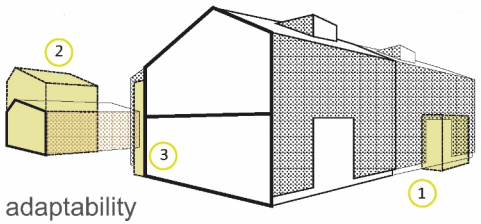
3 clad with fenland-inspired timber



4 customise and finish

liveability

- sunlit, low energy design
- garden for kids to play
- bikes securely stored in barn
- parking barn accessed from mews
- bins neatly kept in side store
- fenland timber character
- covered outdoor dining



adaptability

1. canopy enclosed to store coats and boots
2. barn extended for teens' den or grandparents' room
3. more living space and an extra bedroom facing the garden

open to all

- build your own Fenland home for under £100k
- affordable to many: a broad market
- combines simple skills with DIY materials
- customise your home's fittings and finish
- provides opportunities for self-build at Wing

liveable and adaptable

- a contemporary 110sqm Fenland family home
- tactile local materials weather beautifully
- cars and bikes stored neatly in rear garage
- garage accessed through leafy rear mews
- simply extended as your family grows

diversified housing delivery

- latent demand for self-build plots in the UK
- fulfills self-build policy for Cambridge East
- diversifies the housing provision at Wing
- establishes a stable long-term community
- engages residents in their home's design

House Type 4

Semi detached house: 3 bedroom, 2 storey 110-115.5sq GIA (7.5-9m frontage)

CLONE ZONE

"75% of people would not want to live in speculative housing built in the last 10 years"

source: 2010 YouGov public Poll for the RIBA

New Housing Rating:

29% poor	53% average	18% good

source: Commission for Architecture and the Built environment - Housing Audits 2005 and 2007

The essence of Cambridge is:

*"advancement by discovery and innovation through **experimentation**"*

afford to take RISK – allow for FAILURE – learn from MISTAKE – nurture ADVANCEMENT

Britain's Empty Homes: 2011 Census
(homes with no usual residents)

Cambridge	2,121
East of England	112,463
United Kingdom	980,729

provide 100 affordable plots – invite 100 individual clients – appoint 100 Cambridge architects
employ 100 local contractors – build 100 personal homes

HOME ZONE

Top 10 UK house builders 2012: Housebuilder Oct 2013
(by no. of units):

Barratt	12,857	Bellway	5,226
SELF BUILD	**10,940**	Galliford Try	3,039
Taylor Wimpey	10,886	Redrow	2,458
Persimmon	9,903	Bovis	2,355
Berkley Group	3,565	Crest Nicholson	1,882

analyse the results – make adjustments – continue forward

HOMES not HOUSES

*let the people build **their** future and create **their** community*

ENABLE INGENUITY TO FLOURISH

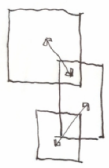
4_SEMI-DETACHED HOUSE

The aim of our proposal is to foster a sense of community through the direct interaction between neighbours within a network of growing and working spaces.

Balconies, terraces, and pop-out windows encourage a relationship with exterior spaces.

Internally, rooms overlap, simultaneously connecting the activities of family members throughout the day creating a generous home flooded with daylight.

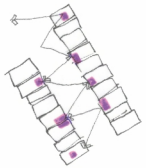
vertical overlapping / shared light and interaction



horizontal overlapping / shared spaces and interaction

Encouraging a sense of community through shared and overlapping spaces...

... in network of growing spaces in and around dwellings

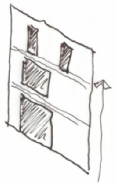


... as well as shared work spaces within homes

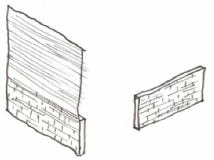
SECTIONAL AXONOMETRIC *showing types of growing spaces (green), possible work spaces (purple) and interactions*

4_SEMI-DETACHED HOUSE

... whilst still making references to the unique Cambridge context...

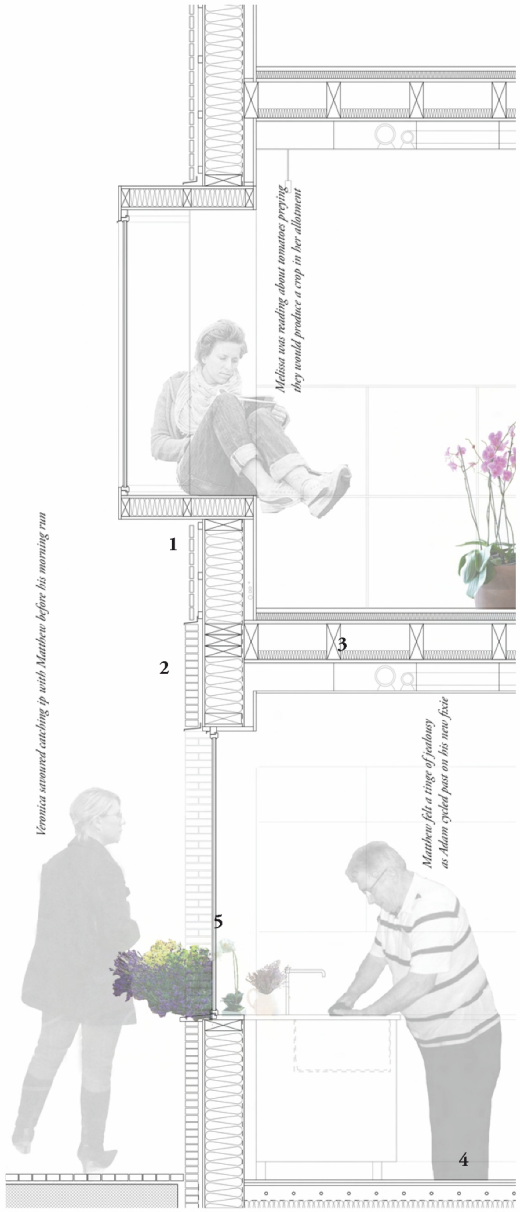


... through a pronounced hierarchy of floors and fenestration



... and a sensitive and gracefully aging material palette

ELEVATION 1:25



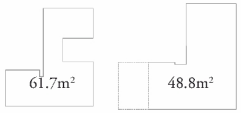
DETAIL SECTION 1:25

4_SEMI-DETACHED HOUSE

/ The GIA is 110.5m², which is at the minimum required. The open plan ground floor, split-level first floor + void in the centre of the plan (see axonometric) make the space feel larger and lighter. Small balconies provide light + space for plants.

/ A small back garden - plots are divided by double-layered brick walls in which planting space is shared with neighbours - opens out onto shared allotments and bbq spaces.

/ A built-in garage on the ground floor removes the presence of cars from the street. Through this, the street becomes a shared space, open to community activities and play.

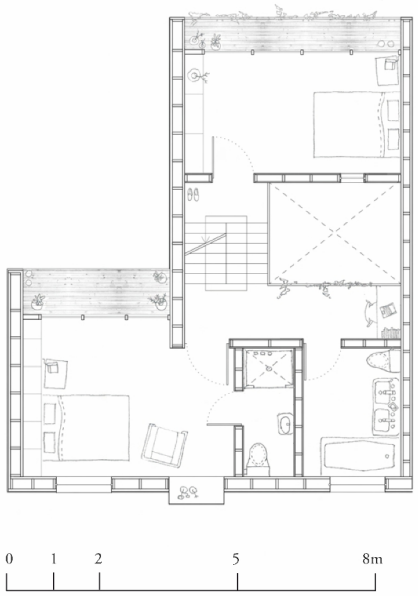


1 / Highly insulated walls (u value = 0.2) + triple glazed, low-e windows in line with code level 4. This system utilises pre-fabricated, modular timber construction which keeps costs low.

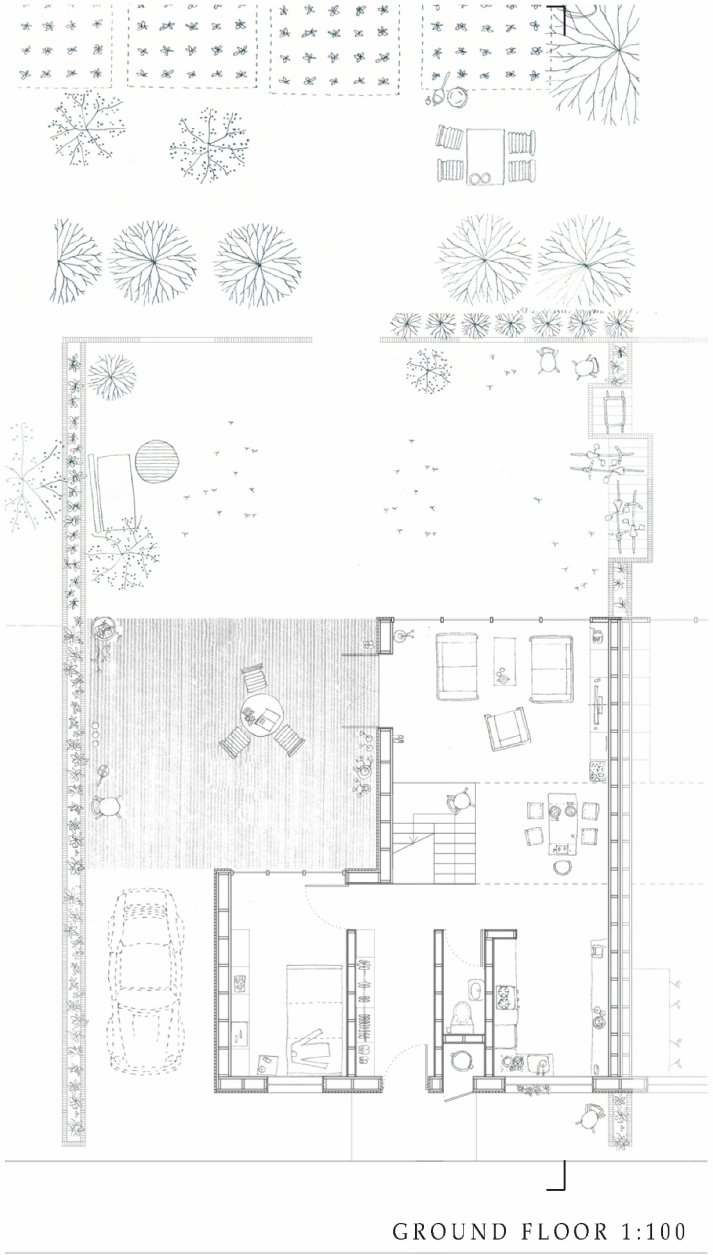
2 / Walls are clad in brick sourced locally from Oxford Clays + Douglas Fir strips, sustainable material sources. Copper highlights on some window boxes give character to the facade. The timber will weather gradually to turn into a similar colour to match the bricks; the copper will darken.

3 / Suspended ceilings to provide space for mechanical ventilation in all rooms in line with code level 4.

4 / Concrete ground floor slab for thermal mass (utilising solar gains) + underfloor heating systems.



FIRST FLOOR 1:100



GROUND FLOOR 1:100

TOWN HOUSE:

3 BEDROOM 3 STOREY 113-118SQM GIA

Due to the large number of entries in this category, we refer you to prior texts from companies with entries in two or more previous categories.

31 DPA Architects & CHS

CandCD develop affordable social housing and high quality housing for sale in the open market. As a key local business in Cambridgeshire and as part of a group that has been developing here for more than 80 years, we are well connected to and understand both the private housing market and social housing needs within the county. CandCD have partnered with DPA Architects, an award winning architectural practice who have been based in Cambridge for over 40 years. DPA understand the fundamental design principles to delivering good architecture at affordable prices and our partnership brings a wealth of experience within the City.

32 Mart Barrass Architect (Ltd)

Mart Barrass RIBA

See previous entries 10, 17 & 29

33 Mole Architects

See previous entries 1 & 26

34 Haysom Ward Miller

Haysom Ward Miller is an established practice based in the centre of Cambridge. The practice has a particular expertise in sustainable construction and a design philosophy which aims to achieve well integrated, contextually appropriate buildings.

In addition to many domestic projects for private clients, Haysom Ward Miller are currently working across 12 sites on over 100 dwellings for developers in and around Cambridge,

The directors have taught at the architectural faculty and served on the city design review panel. Haysom Ward Miller are winners of a 2011 RIBA Award.

35 HLM Architects

As lead masterplanner for the Cambridge Southern Fringe expansion, a significant knowledge was gained of the Cambridge context. Many years were spent conceptualising, planning and studying the wider development impact on Cambridge, where exhaustive studies on typology of homes were included in the Design Codes for this project. Now leading our own team on WING, the Cambridge buzz has become part of the team's design repertoire. Having presented to the council, the many forward thinking committees, action groups and societies that make up the social fabric of Cambridge, puts us in a suitable position to undertake this commission.

36 Freeland Rees Roberts

Freeland Rees Roberts, established in 1981, have designed houses, and worked on hundreds of house alterations and extensions for all types of Cambridge houses, as well as new residential accommodation for local developers and college student rooms.

Most Cambridge clients have similar desires: more light, better access to outdoor amenity space, improved insulation and consideration of renewable energy sources; plus an appreciation of contemporary design using traditional local materials.

Having worked on Cambridge houses dating from medieval through to modern designs, we have developed a sense of characterisations and evolution of the Cambridge house.

37 Glenn Howells Architects

Cambridge has fantastic amenity provision, which makes it one of the most vibrant and successful places for urban living. However the standard of housing is poor. Many terraces front onto the pavement, while storage and garden provision is minimal. The opportunity to champion a new approach is ripe, and yet to achieve this in a successful

density presents a challenge.

A design that is able to make efficient use of footprint with greater amenity and storage provision would be a welcome approach. With a reputation in design, GHA have recently completed the Fire Station in Parkside in Cambridge.

38 Emulsion Architecture

This competition struck a personal chord with us as a practice, as it was at Cambridge that the directors Yen-Yen Teh and Michael Deeley met whilst studying architecture at Scroope Terrace. In particular, Michael started his academic career at Cambridge in aeronautical engineering, before translating his skills to architecture.

We remain greatly influenced by the diversity of the architectural heritage which predominates Cambridge, from the post-war heroics of colleges such as Churchill and the lecture theatre at the School of Architecture, to the chimneys of Trinity Lane.

Our passion and memories of the city still resonate in Emulsion's design ethos today.

39 Ingleton Wood

As I and our architects make the regular trips from our Norwich office to the monthly CPD lectures in Cambridge, I recall sitting in a small office over 20 years ago with Professor Colin St John Wilson and Nicholas Hare to fill in a grant application form for the RIBA East Education committee. That successful bid helped to establish the RIBA CPD programme, originally held in the Martin Centre in Cambridge and is still active today.

With the ongoing developments in research and sustainable technologies and its historic architectural legacy, Cambridge remains an important source of inspiration and knowledge.

40 Sarah Wigglesworth Architects

See previous entries 8 & 28

41 Archipelago Architects

See previous entries 12 & 24

42 Saunders Boston

See previous entries 11 & 27

43 Atelier Architecture

An intellectual curiosity of the educational and physical environment that has helped to produce one of the two outstanding examples of a university town in the country, and a subsequent desire to contribute to this sense of place.

44 MWSOGL

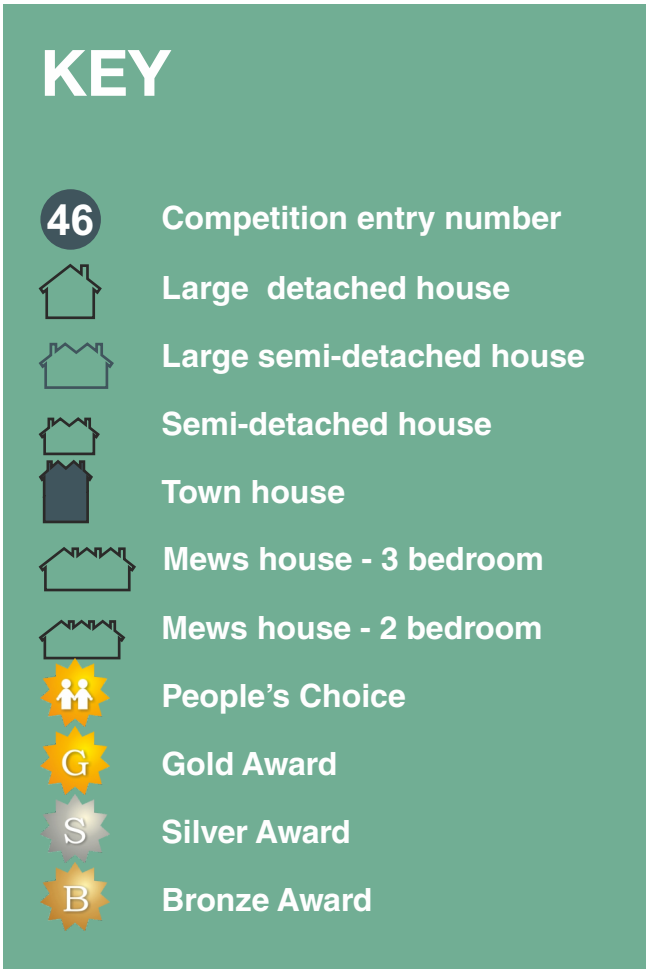
Our inspiration for this project came from observing the act of selling home-made produce in front gardens on roads in the Cambridgeshire countryside. In parallel, we have always found the predominance of cycling in Cambridge fascinating, and the spirit of the inhabitants of the city to collectively embrace an alternate mode of transport.

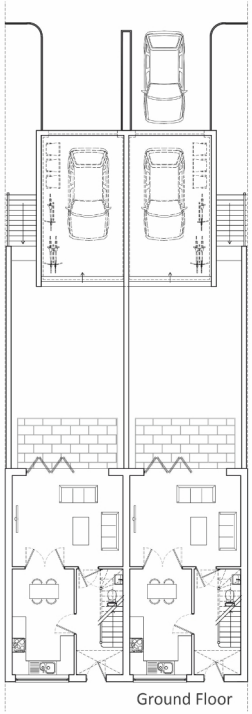
Based on this, we were interested in creating a network where each individual unit contributes to a whole – thus each house has been given the opportunity to grow plants and food which, collectively, creates a network of exchange of physical goods and social interactions.

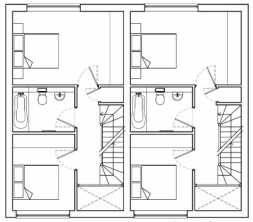
45 Studio Becher

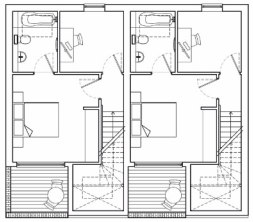
RIBA Chartered Architect Peter Karl Becher is Principal at Studio Becher and Design Fellow at the University of Cambridge. Together with urban designer Karin Templin he teaches a third year design unit called 'Housing as City Making'.

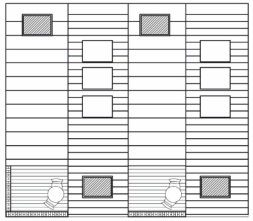
Prior to establishing his Anglo-German studio for situational architecture and urban design in London in 2007 he was senior architect at Herzog & de Meuron. A key member of the Beijing Olympic Stadium 2008 team he primarily lived in Beijing in 2004 and 2005.




Ground Floor


First Floor


Second Floor


Roof Plan

House Type GREGORY PARK
Town House. 3 Bed, 3 Storey.

House Area 115.7 m²

Georgian terraces symbolise the Cambridge Street scape and the value of these properties increase whilst other experiments in urban housing continue to fail.

Our terrace typology adapts this traditional relationship between public and private facades, bringing together these archetypal situations up to modern housing standards.

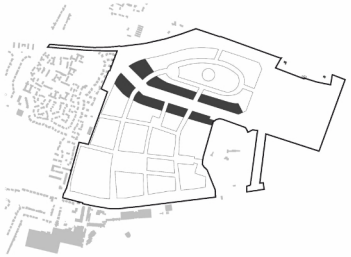
A reclaimed Cambridgeshire brick façade wraps up to the zinc clad second floor blending the old and modern constructions whilst creating a recognisable architectural character.

The rhythm of the recessed terraces provides a compositional variety that enriches an otherwise uniform terrace and provides the main bedroom with astonishing views towards the Linear Park via a triangular glazed opening.

The masonry cavity wall construction gives the buildings a high thermal mass, which is able to moderate excesses in temperature and store energy obtained by solar gain.Roof mounted Solar Water Heating Panels is included to provide a cost effective method to sustainably given the scale of development and physical constraints of the site.

Front Elevation

Rear Elevation



B

House Type 3

Town house: 3 bedroom, 3 storey 113-118sqm GIA, including an integral car port (8-9m frontage)

CLONE ZONE

"75% of people would not want to live in speculative housing built in the last 10 years"

source: 2010 YouGov public Poll for the RIBA

New Housing Rating:

29% poor	53% average	18% good

source: Commission for Architecture and the Built environment - Housing Audits 2005 and 2007

The essence of Cambridge is:

*"advancement by discovery and innovation through **experimentation**"*

afford to take RISK – allow for FAILURE – learn from MISTAKE – nurture ADVANCEMENT

Britain's Empty Homes: 2011 Census
(homes with no usual residents)

Cambridge	2,121
East of England	112,463
United Kingdom	980,729

provide 100 affordable plots – invite 100 individual clients – appoint 100 Cambridge architects
employ 100 local contractors – build 100 personal homes

HOME ZONE

Top 10 UK house builders 2012: Housebuilder Oct 2013
(by no. of units):

Barratt	12,857	Bellway	5,226
SELF BUILD	**10,940**	Galliford Try	3,039
Taylor Wimpey	10,886	Redrow	2,458
Persimmon	9,903	Bovis	2,355
Berkley Group	3,565	Crest Nicholson	1,882

analyse the results – make adjustments – continue forward

HOMES not HOUSES

*let the people build **their** future and create **their** community*

ENABLE INGENUITY TO FLOURISH

Town House

TH3/01

House type within new urban block plan

Location within masterplan

Cambridge precedent

SMALL SCALE STREETS WITH LIVING ROOMS OVERLOOKING THE STREET

* REAL STREETS
  - Car Parking off the street- no car courts!
  - Living rooms overlooking street
  - Front gardens to all houses

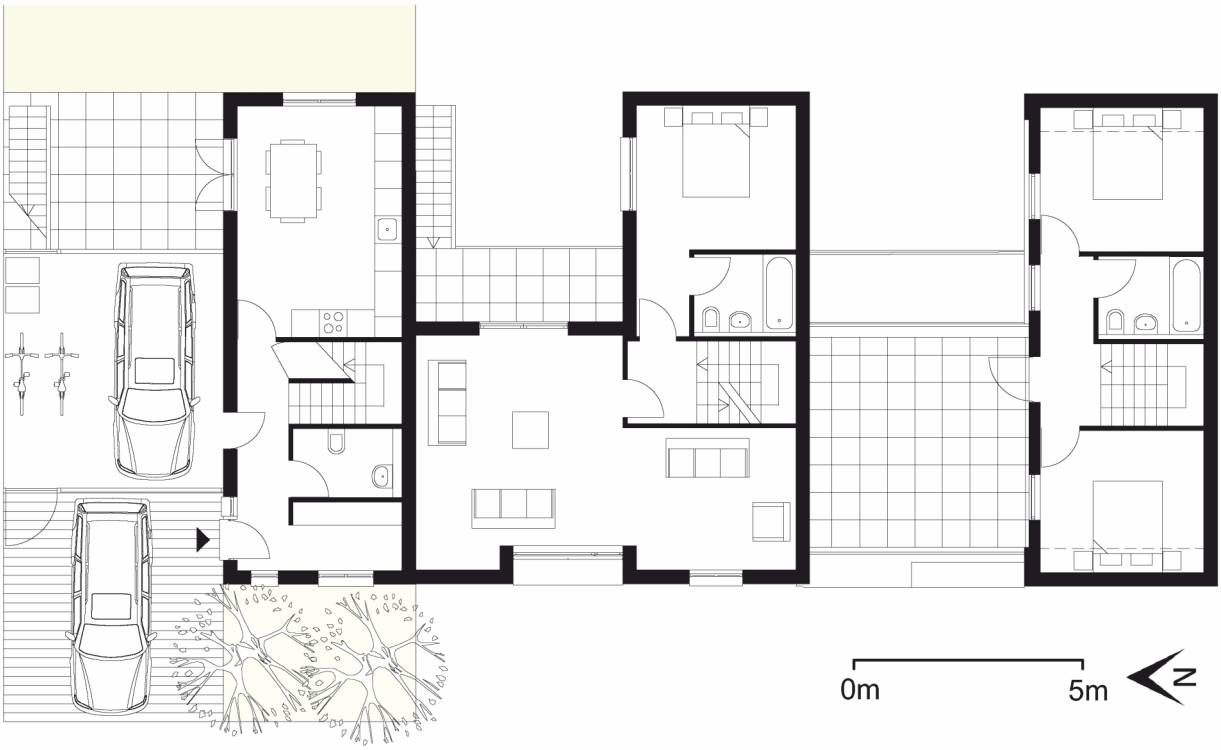
* INCREASED DENSITY
  - 15 % extra houses = 15 % extra quality

* LIVE WITH THE SUN AND TREES
  - Streets & houses orientated for solar gain
  - Streets terminate in view of the park

*PRIVATE GARDENS
  - Houses designed to respect privacy and prevent overlooking

TH3/02 Type 3 : 3 Storey 3 Bed

Ground Floor First Floor Second Floor



Front Elevation

Side Elevation

118 sqm GIA: Frontage 9m

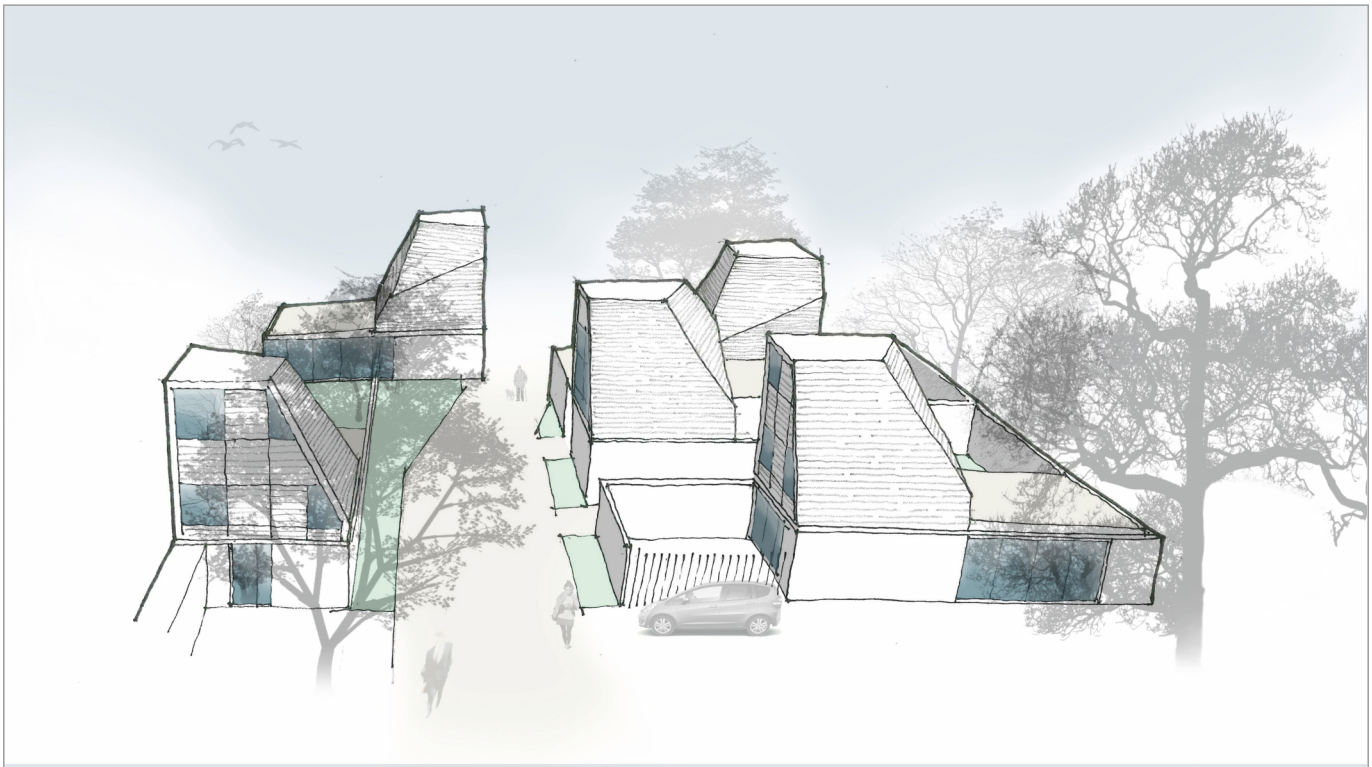
East- west orientation

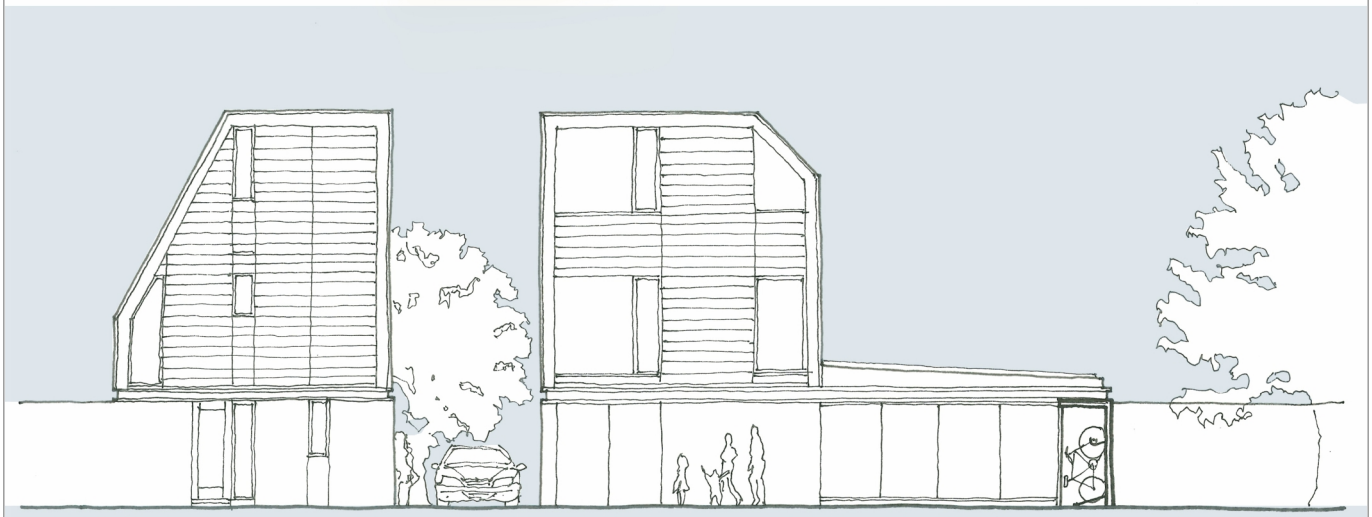
Southerly orientation for bedroom terrace

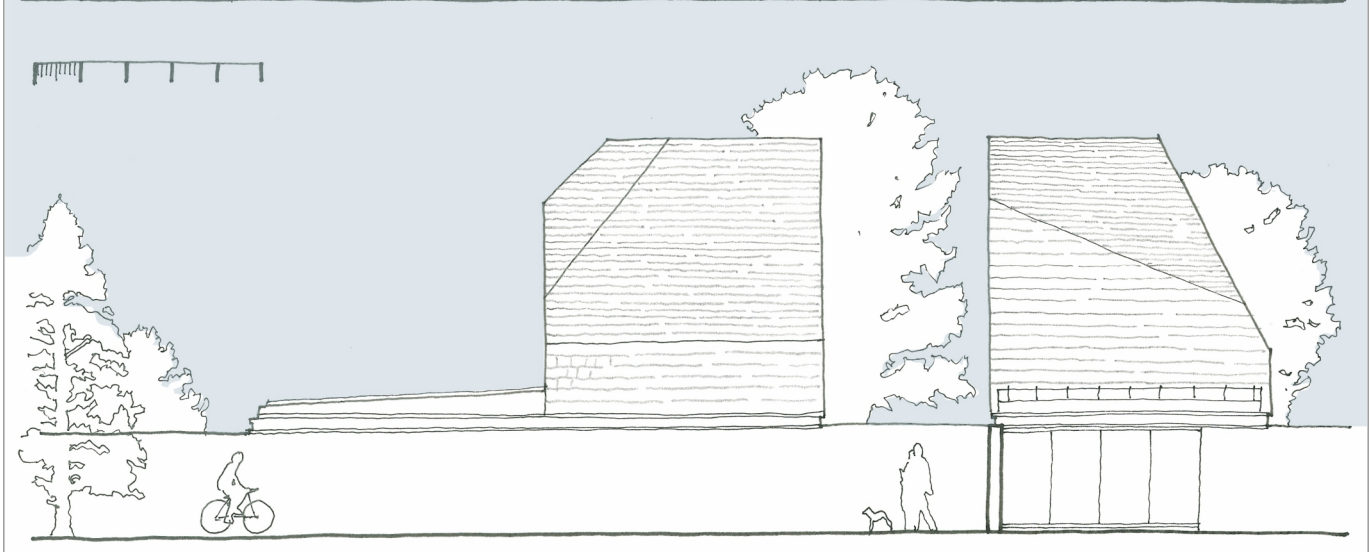
Brick, tile, and timber to entrances

Garage and off street parking

Integral bin and bike store accessed internally







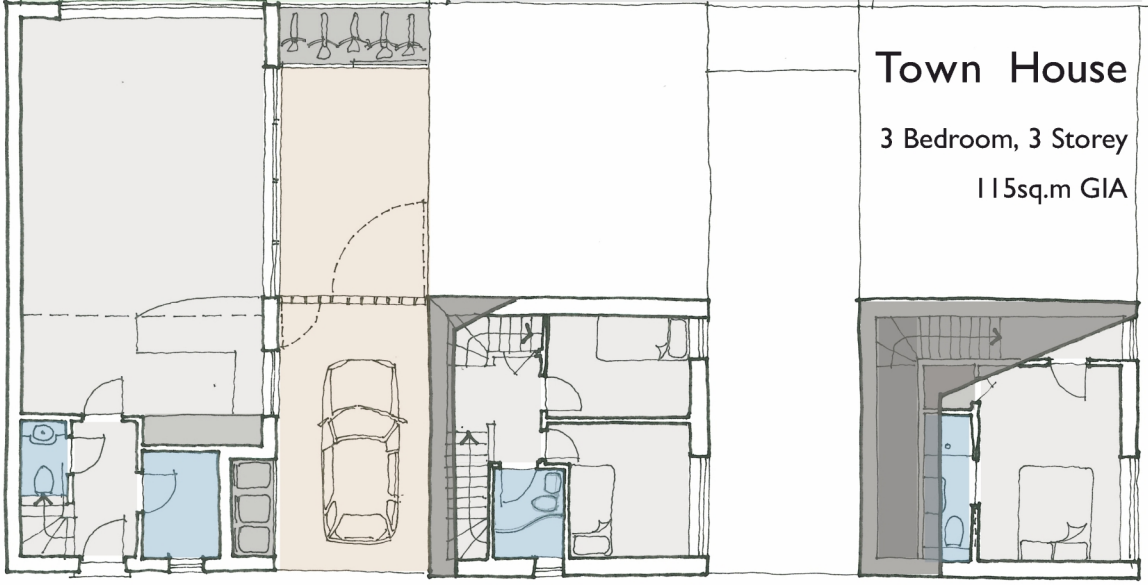
The Pepper Pots

The Pepper Pots

Town House

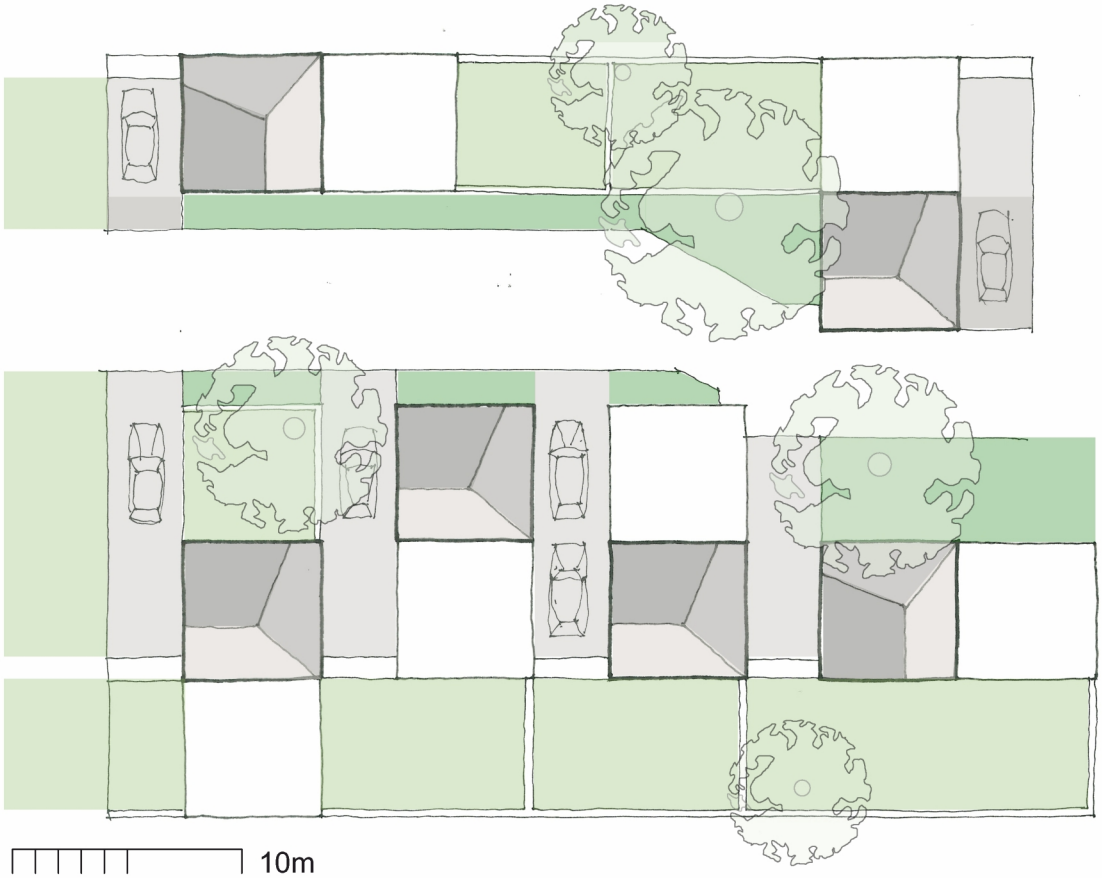
3 Bedroom, 3 Storey

115sq.m GIA



Ground Floor First Floor Second Floor

5m



10m

"GROW YOUR OWN HOME" - The Flexible Living Environment

Without flexible living spaces, people have to move to accommodate change, money is wasted, communities lose social cohesion and the house becomes a tool rather than a home to grow in.

Our strategy sets out to redefine the value of putting down roots, with a totally flexible living structure that can grow as you do. Every eventuality can be accommodated, from having lodgers, a family, working from home, arrival of twins, arrival of in-laws, disability, an extra car, storage, play den, a larger lounge, decks to grown your own food on, attics to store more and the ultimate in penthouse living.

With your energy invested in one place you can now "Grow Your Own Home".

Based on the principle of modern modular construction, using cross laminated timber constructed off site, the house can be easily expanded with bolt on rooms designed to suit your requirements.

A central stem provides circulation core and access with services branching to each floor making for easy expansion.

The wide format elevation offers a variety of extension configurations to maximise the footprint of house, while maintaining a coherent street scene and domestic scale environment.

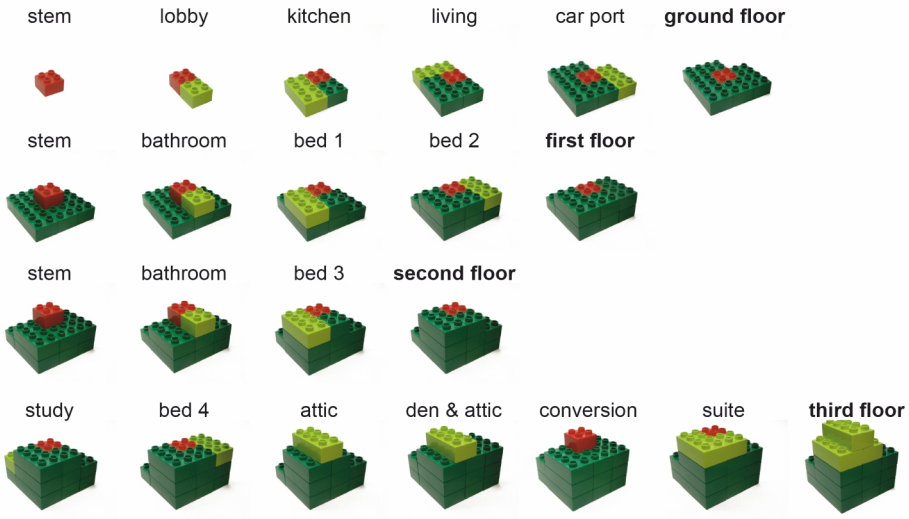
Type 3) Town House : 3-Bed 3-Storey - 117m2

Adaptable as either a terrace or semi-detached house

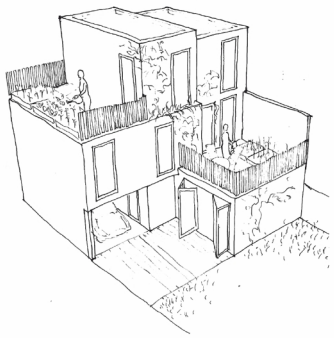
Features of Growth

1. Simple modern construction methods
2. Standard size units and modular components
3. Flexible configuration of building
4. Available in range of materials locally sourced
5. Personalised growth plan to expand when you can

Stages of Home Growth



Visualisation



Concept sketch illustrating rear elevation and terrace levels

Typical street elevation vernacular showing potential extended elements

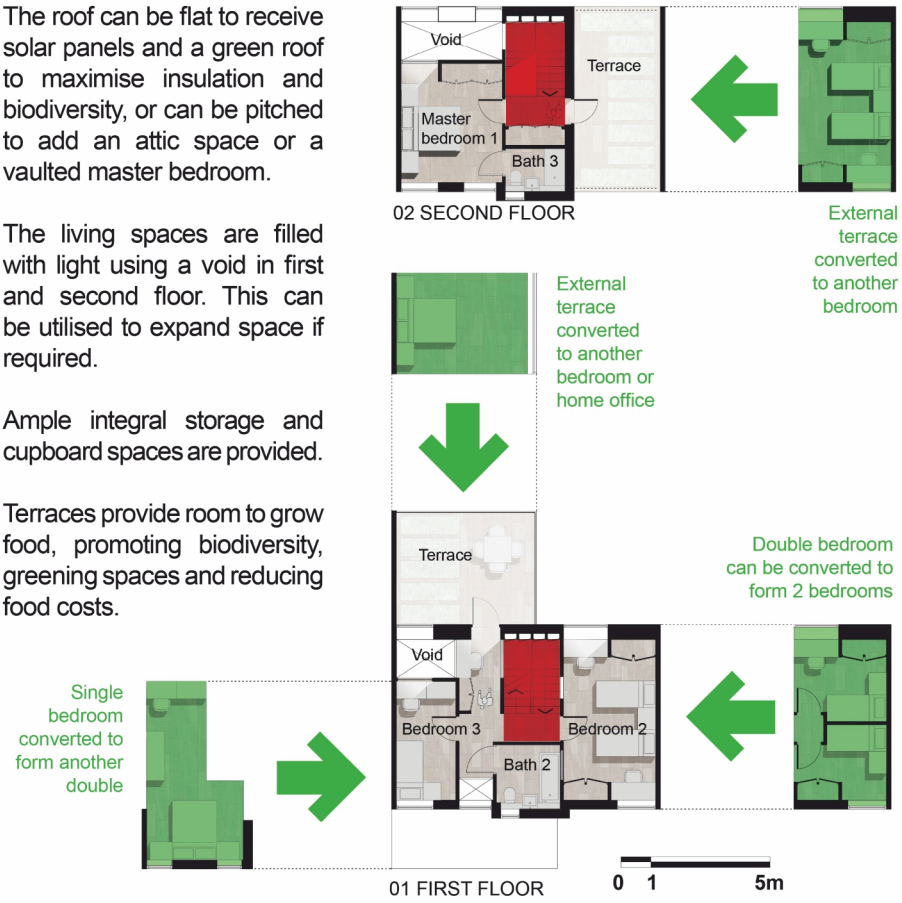
"GROW YOUR OWN HOME" - The Flexible Living Environment

The roof can be flat to receive solar panels and a green roof to maximise insulation and biodiversity, or can be pitched to add an attic space or a vaulted master bedroom.

The living spaces are filled with light using a void in first and second floor. This can be utilised to expand space if required.

Ample integral storage and cupboard spaces are provided.

Terraces provide room to grow food, promoting biodiversity, greening spaces and reducing food costs.



External materials are combined of darker buff brick forming ground floor, a lighter brick on upper floors, vertical timber paneling defining the garage and terrace screen and dark timber framed windows. These material reflect the tones of central Cambridge buildings and are locally sourced.

Material palette

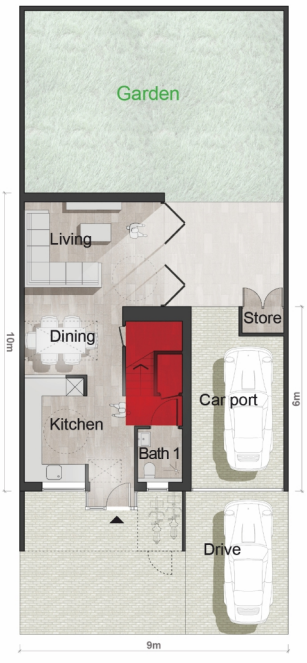
House footprint is designed to be either repeated to form terrace or handed to form a semi-detached dwelling.

Kitchen space and stair core can be enclosed for personal preference.

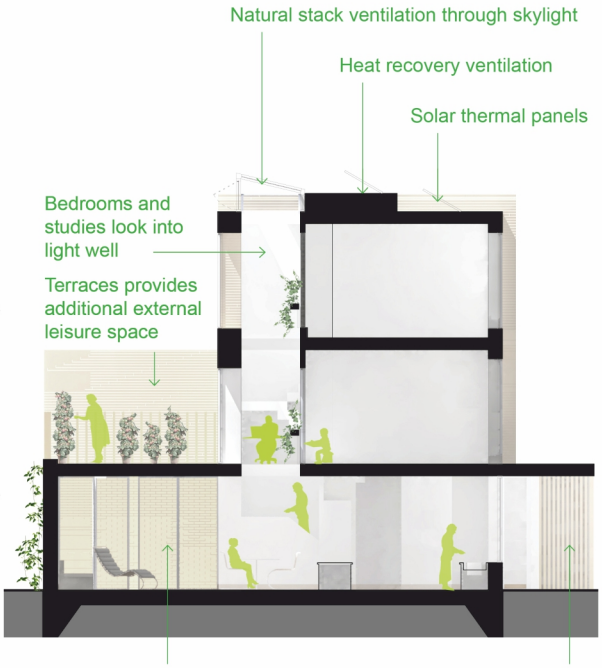
Bike and refuse storage is integral to deep entrance canopy. A kitchen window provides natural surveillance.

Dwelling type can form a mews - without additional drive space - or have a front garden to form wider street.

Design meets all 'Life Time Homes' and 'London Housing Design Guide' standards and is designed to CSH code 4.

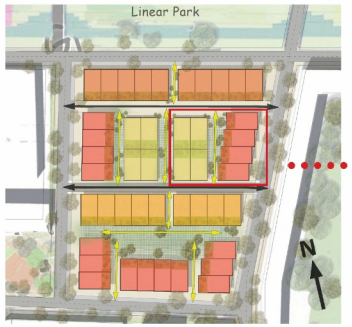


00 GROUND FLOOR



DraWing November 2013

Town Houses (House type 3)

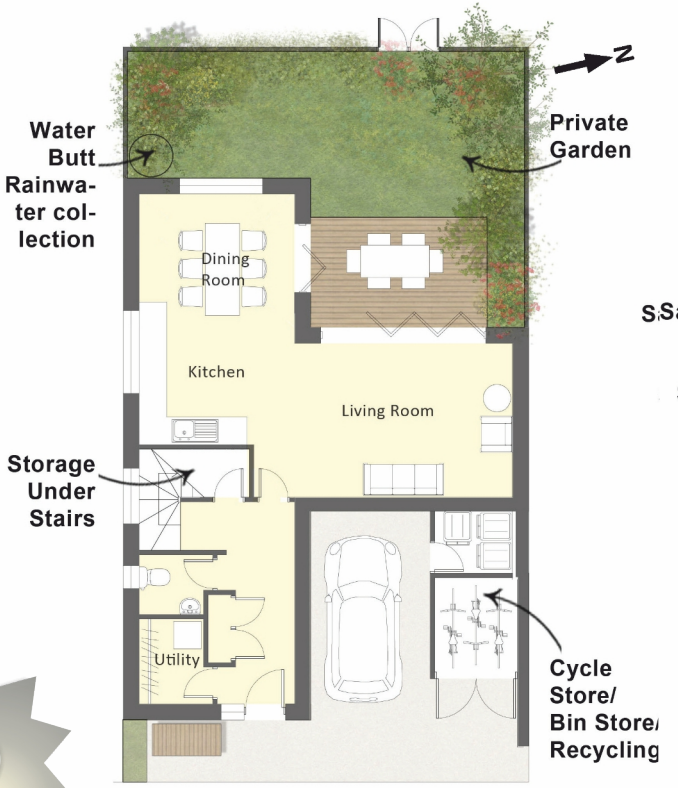


Renewables
- Assume site CHP or bank of solar panels/PV panels.
- South facing roof could incorporate integrated Himin roof with PV/solar rooflights

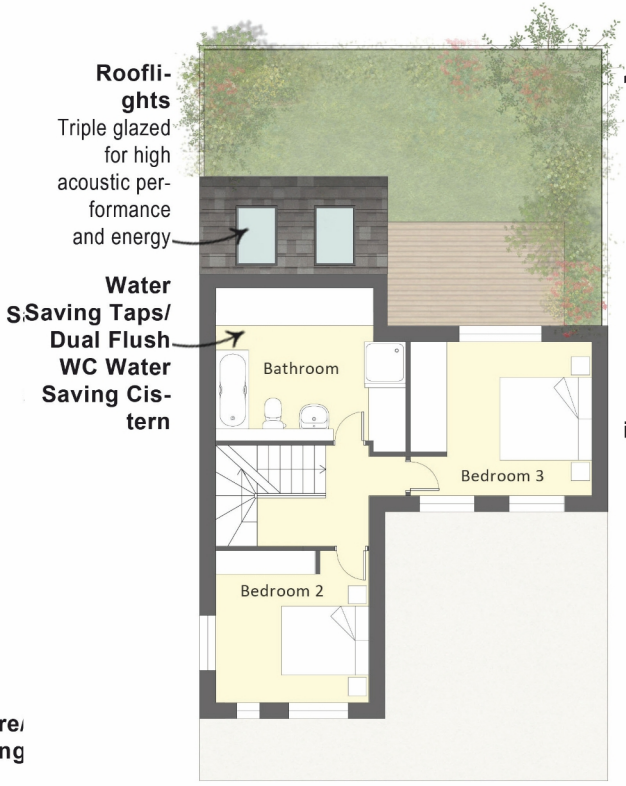
Services
- Renewable energy supply for low temp underfloor heating.
- Good day lighting, low energy lighting LEDs.
- AAA rated appliances in kitchen/ utility.
- Drainage to water butt then SUDS.

Fabric First
- CLT (Cross Laminated Timber).
- Insulation: hygroscopic sheeps wool (British source) 25% > 2010 B.Regs
- Airtight layer OSB and fibre board insulation NBT

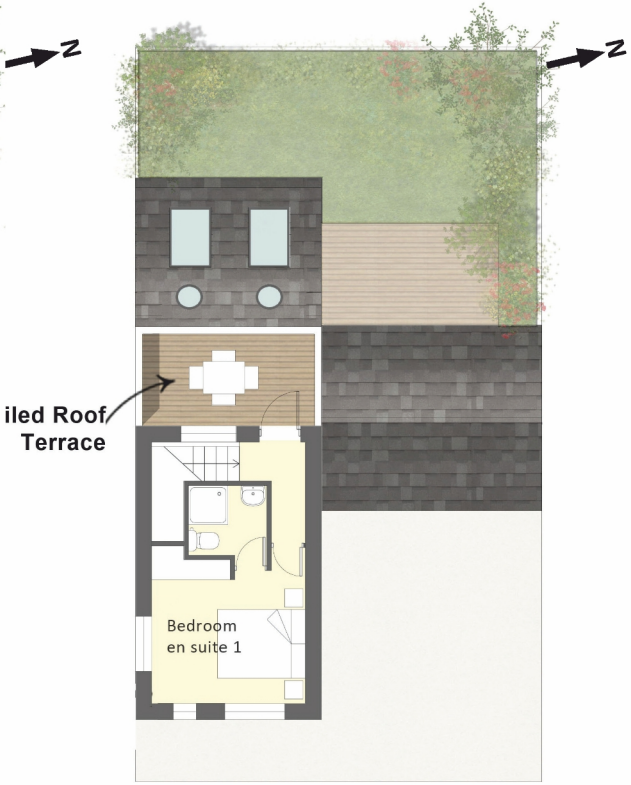
House Type 3
Ground Floor area: 53.7sqm
First Floor area: 42.3 sqm
Second Floor area: 18.8 sqm
Floor Area: 114.8 sqm



Ground Floor Plan



First Floor Plan



Second Floor Plan

Front Elevation

Rear Elevation

Perspective

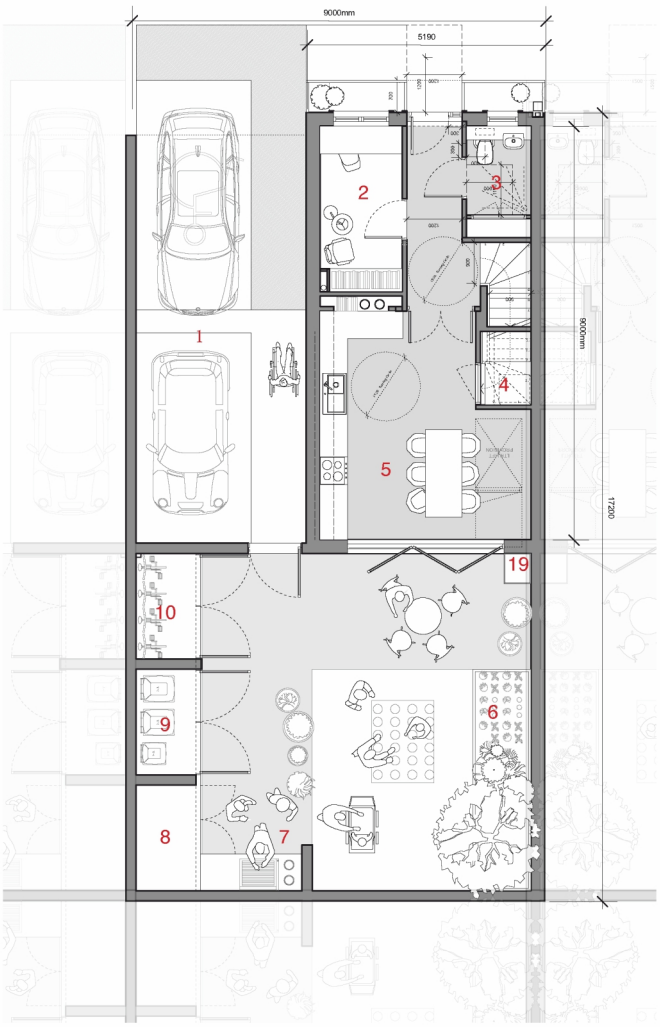
Section

Cambridge
Townhouse

A Housing Type Study of the Three Bed, Three Storey, Townhouse.

1. Car Port
2. Study
3. W/C and Shower Room
4. Acoustically sealed Utility
5. Kitchen/ Diner
6. Vegetable Patch
7. Patio and BBQ
8. Garden Storage
9. Refuse Bin Store (3.no)
10. Bicycle Store (4.no)
11. Terrace
12. Balcony
13. Lounge with Balcony and Terrace Access
14. Master Bedroom with en-suite Bathroom
15. Winter Garden
16. Guest Bedroom
17. W/C and Bathroom
18. Secondary Bedroom with balcony
19. Rainwater Storage Tank
20. Ketton Limestone Reveals
21. Cambridge Buff Brick
22. Low maintenance shallow pitched brown
22. Solar Thermal Water heating and photo voltaic panels to roof.

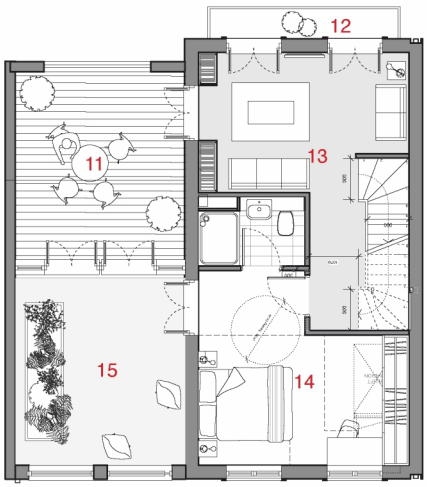
Note: **GIA 118sqm**



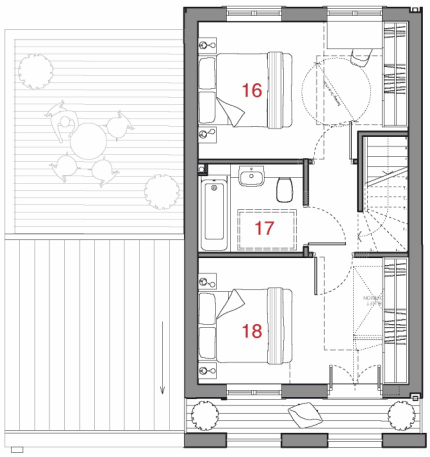
Ground Floor Plan at 1:100

Front Elevation at 1:100

Rear Elevation at 1:100



First Floor Plan at 1:100



Second Floor Plan at 1:100

Street Elevation at 1:200

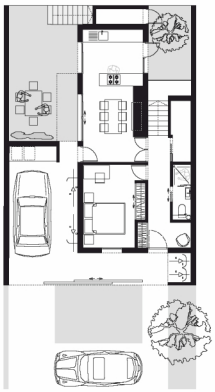
Garden kitchen sketch proposal

A compact 3-bed townhouse designed with adaptable family needs in mind. Off street covered parking gives access to a free-flowing ground floor, connected to a private garden with cycle and refuse storage and a rainwater storage tank. An open plan design with terraces to two floors, it breaks the formal spatial constraints of the townhouse typology.

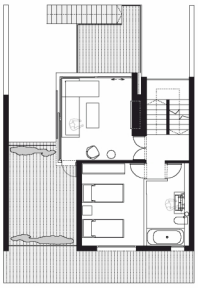
This terrace is accessible from the living room and served by a glazed winter garden to the rear for household cultivation and/or leisure. This winter garden is also internally accessible via double-doors from the master bedroom, providing additional space that extends the use and potential of the outdoor areas into the spring and autumn months.

TYPE 3 - TOWN HOUSE

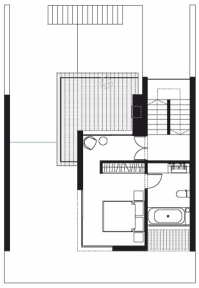
Ground floor



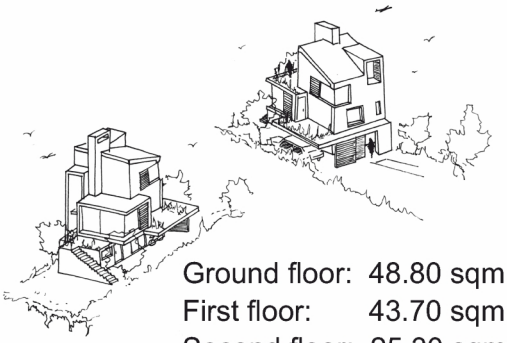
First floor



Second floor



0 1 2 3 4 5 6 7 8 9 10M



Ground floor: 48.80 sqm
First floor: 43.70 sqm
Second floor: 25.30 sqm

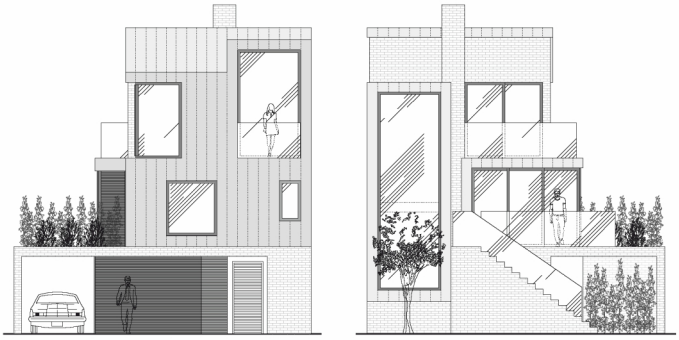
Total Gross Internal Area:
117.80 sqm

View of town house frontages

TYPE 3 - TOWN HOUSE

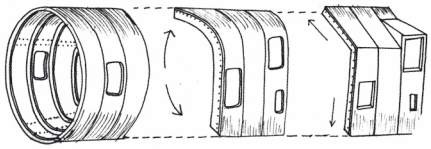
View of the secure communal gardens

Materials:

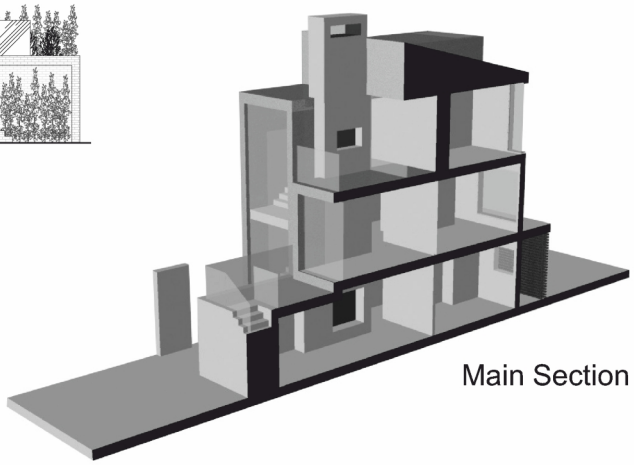


Front Elevation

Rear Elevation



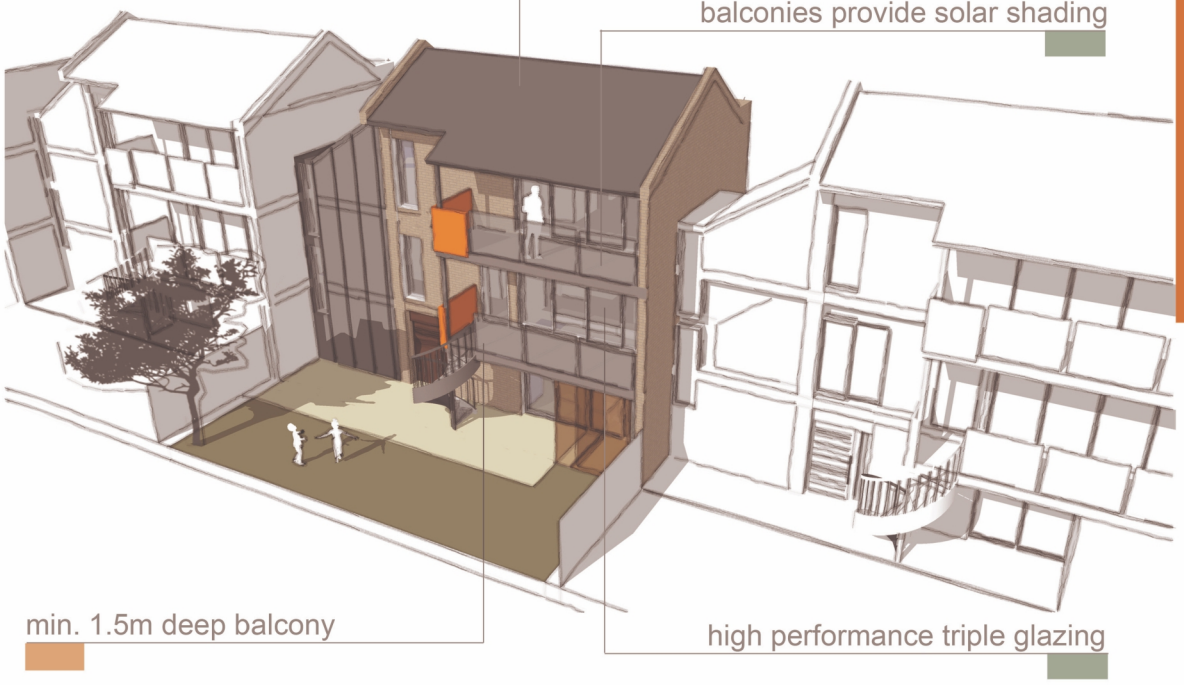
Fuselage cladding concept

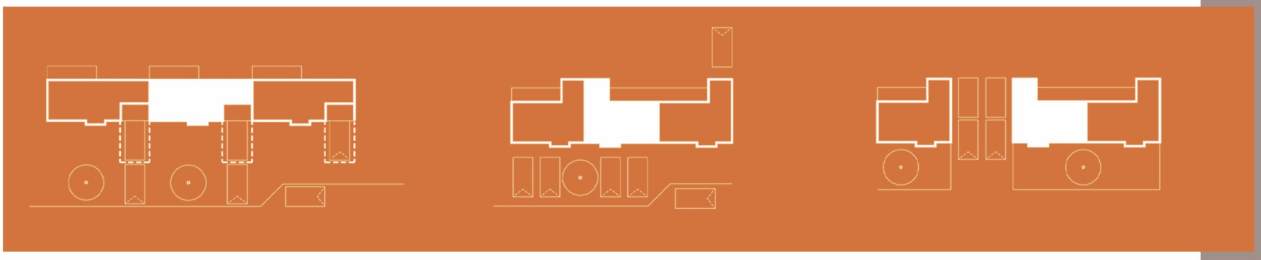


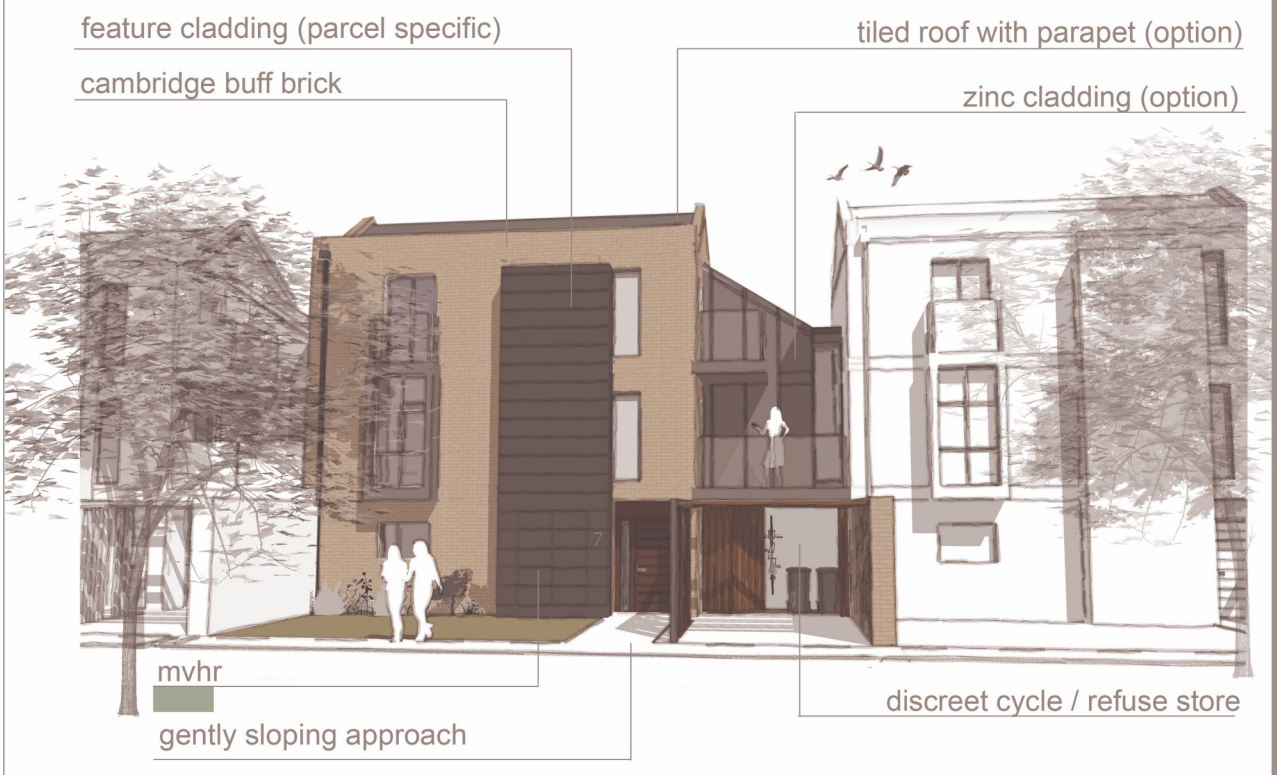
Main Section

View of street elevation

wing competition







kit of parts - customisation

- spiral stairs to garden
- interchangeable living space glazing orientation
- bay window
- winter garden
- roof configuration
- material selection
- green roof

summer overhang shading

maximise solar gain

vertical service riser

hoist provision (criteria 13)

2.5m floor to ceiling

green roof

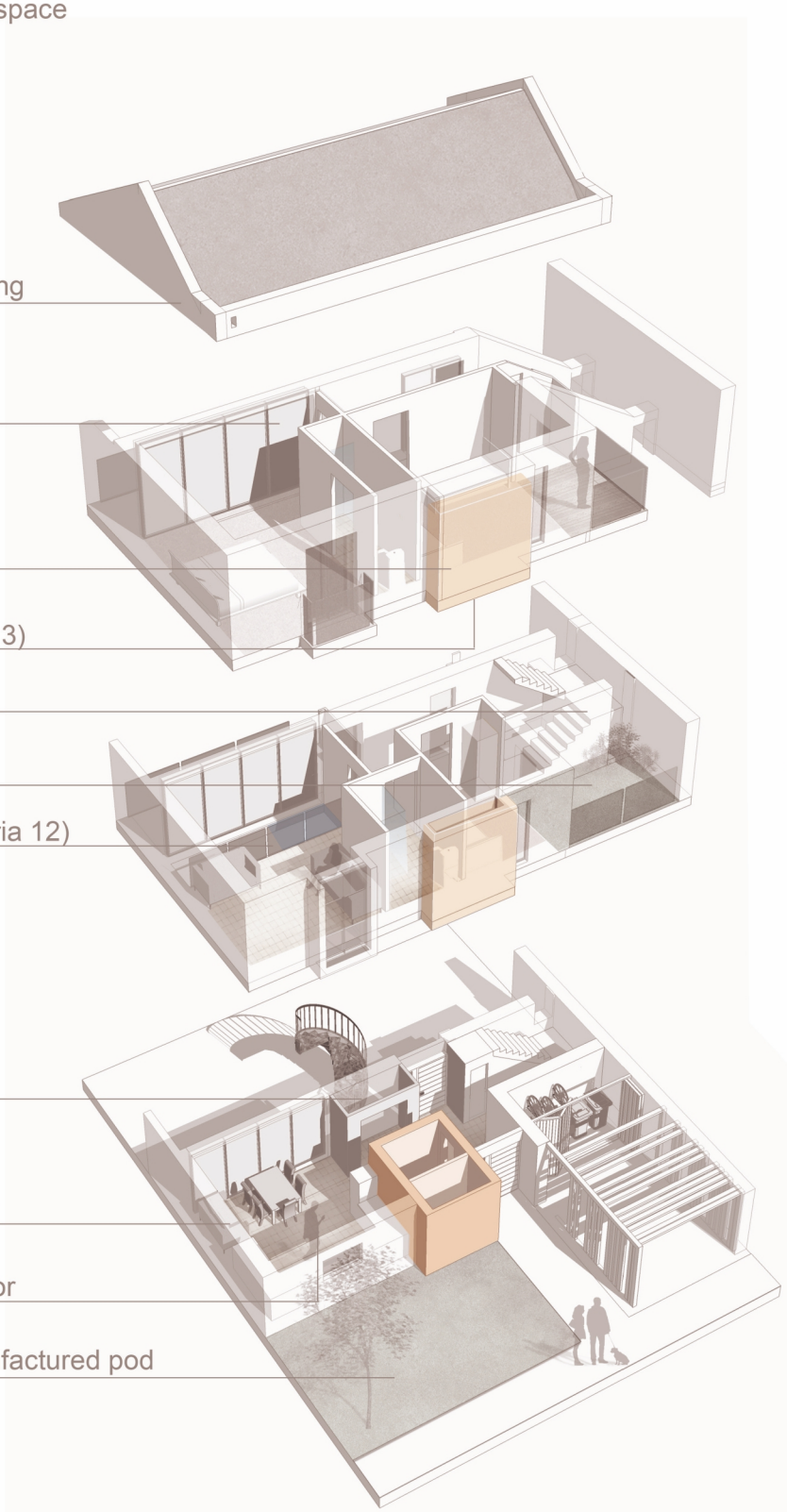
future lift provision (criteria 12)

prams, dirty boots

bed provision (criteria 9)

hard wearing ground floor

plant / wc off - site manufactured pod



n

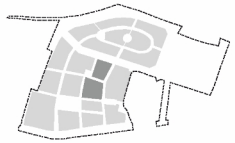
passivhaus (fabric first ≥75% energy reduction)
london plan
lifetime homes

3 bedroom, 3 storey townhouse - 118m² gia

house type 3

Courtyard House

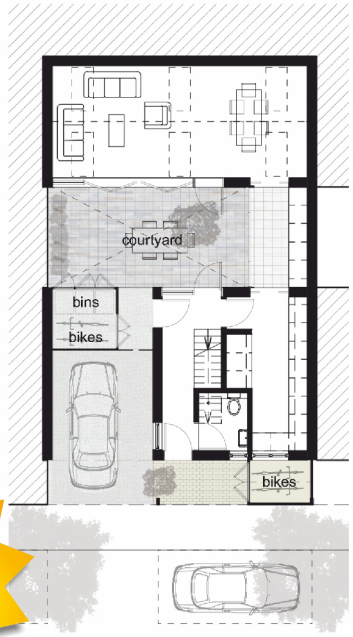
the townhouse set around a secluded private courtyard



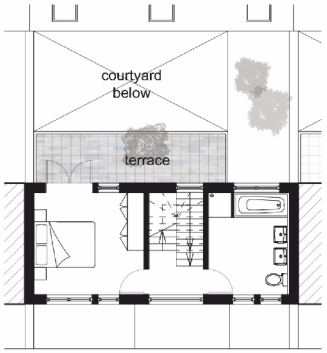
N Central Urban Quarter character area

key facts	
GIA	115sqm
frontage	8.5m
bedrooms	3
storeys	3

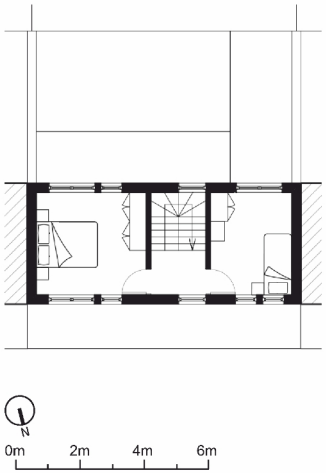
Civic-minded townhouses in local gault brick overlook the streets of Wing's Central Urban Quarter



ground floor plan



first floor plan



second floor plan

• a new kind of townhouse: creates and overlooks a vibrant urban streetscape whilst containing a secluded courtyard for al fresco dining and kids' play

• a compact city: townhouse rows sit back-to-back to form a compact and walkable neighbourhood in the Central Urban Quarter

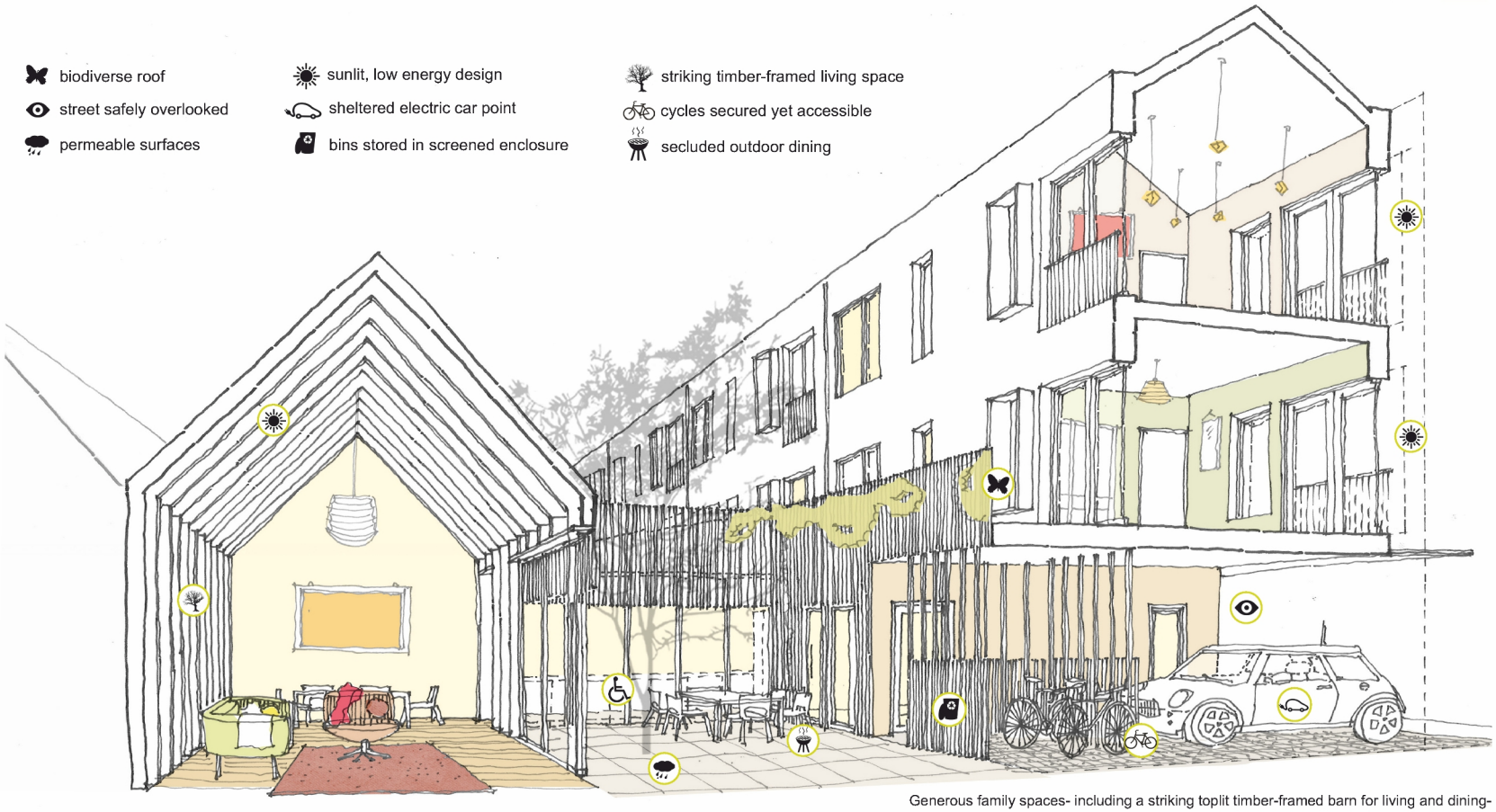
• hidden realm: a private oasis enclosed by generously proportioned living spaces is inspired by the coach houses of Cambridge city centre

• adaptability built in: create extra space for a growing family with simple additions to existing roof spaces and voids

Townhouses and coach houses with a strong street presence; a secluded timber courtyard and barn

house type 3

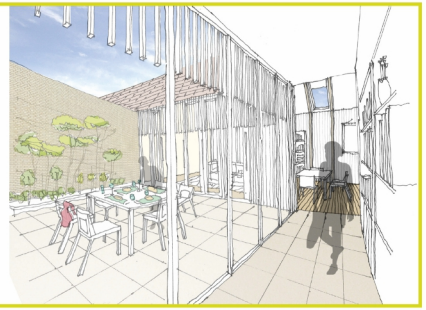
- biodiverse roof
- street safely overlooked
- permeable surfaces
- sunlit, low energy design
- sheltered electric car point
- bins stored in screened enclosure
- striking timber-framed living space
- cycles secured yet accessible
- secluded outdoor dining



Generous family spaces- including a striking toplit timber-framed barn for living and dining- enclose a tranquil private courtyard garden

a quiet space at the centre of Wing

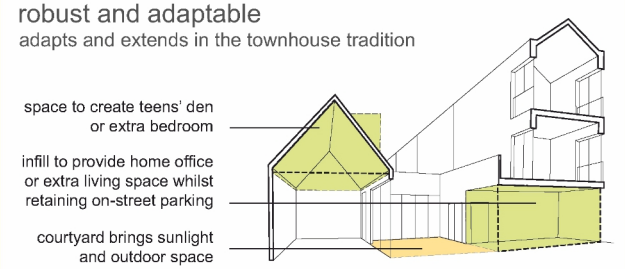
- The best of town and country: a civic-minded townhouse and a bright timber barn for spacious family living
- Retreat to a secluded sunlit courtyard: ideal for growing fruit and herbs, al fresco dining and kids' play
- The coach house updated: a tactile, serene timber-lined courtyard beyond a civic-minded brick frontage
- Bins and bikes neatly kept in screened timber enclosures located close to the street for convenient access

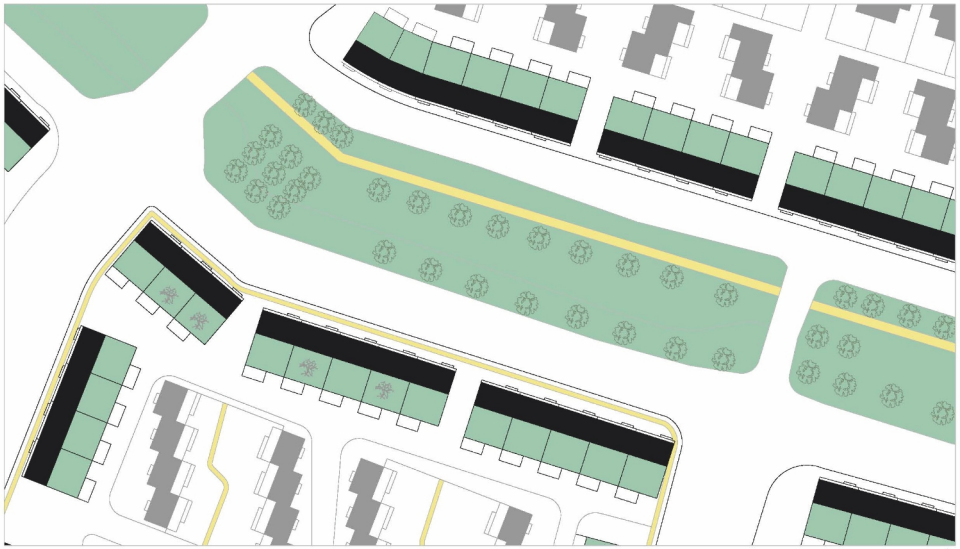


A storage wall fronting the courtyard connects the townhouse to the barn

robust and adaptable

adapts and extends in the townhouse tradition





1

2

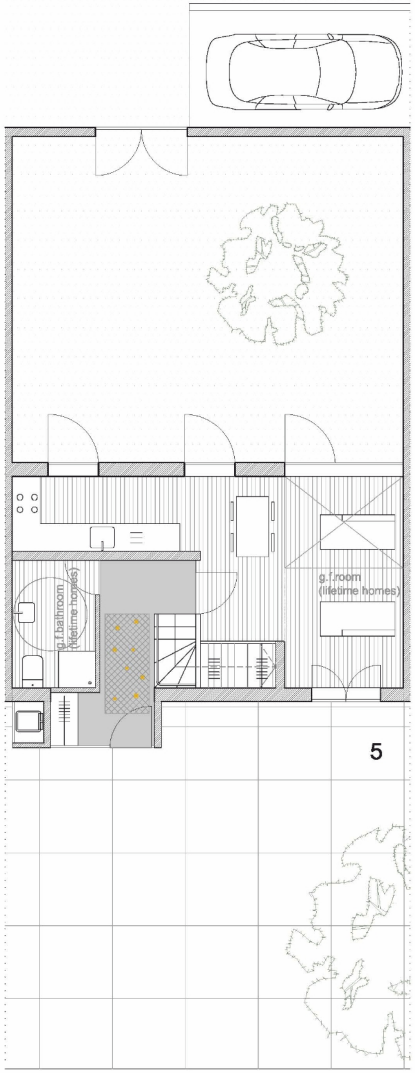
3

4

0 1 5

TOWN HOUSE 115sqm

1.combination of dweling types 1:1000
2. model view
3. street elevation 1:100
4.backyard elevation 1:100



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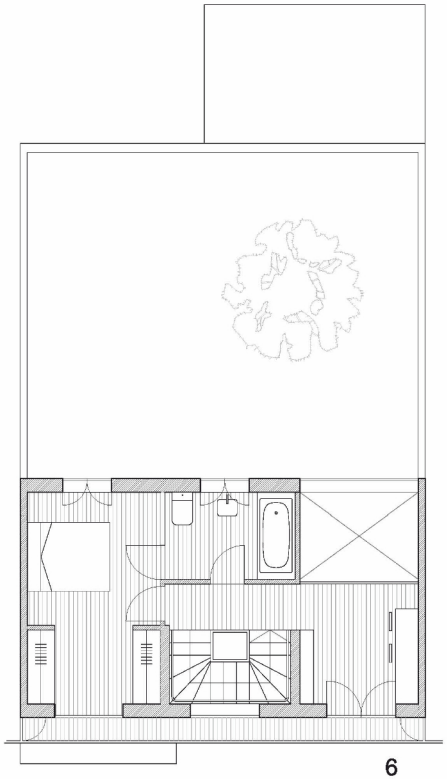

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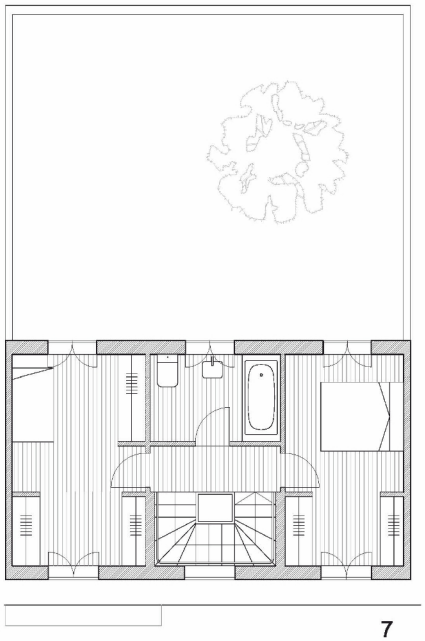

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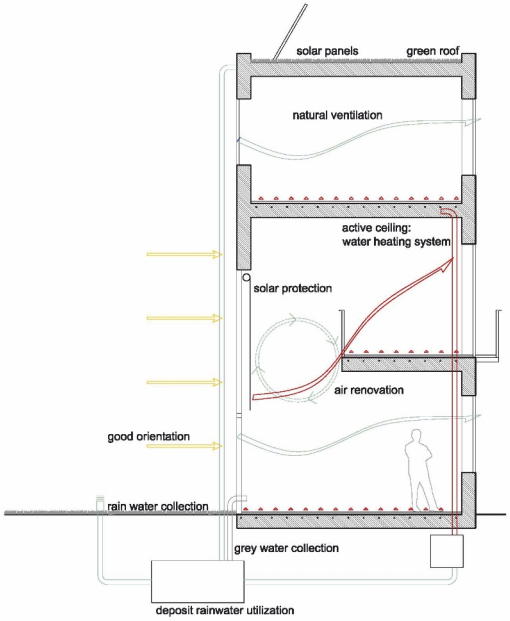


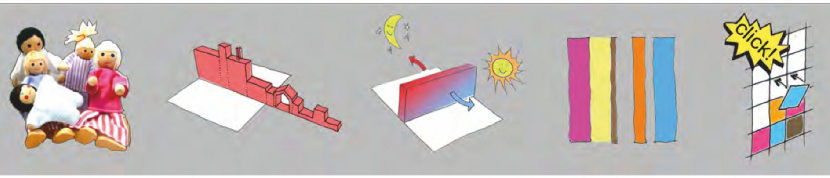
8

0 1 5

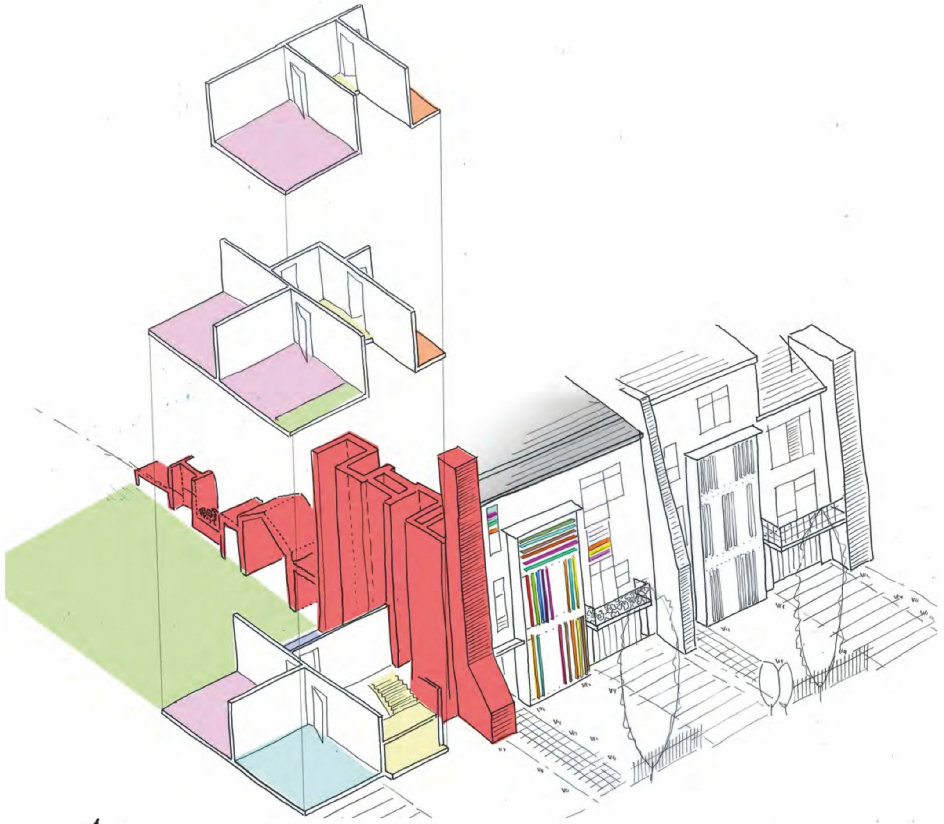
TOWN HOUSE 115sqm

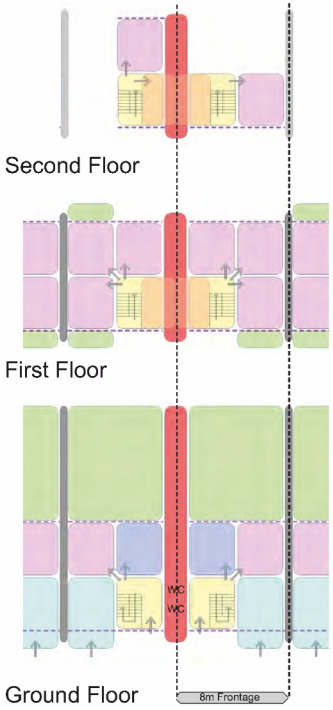
5. ground floor 1:100
6. first floor 1:100
7. second floor 1:100
8. section 1:100

House Type - Townhouse 3 Bed

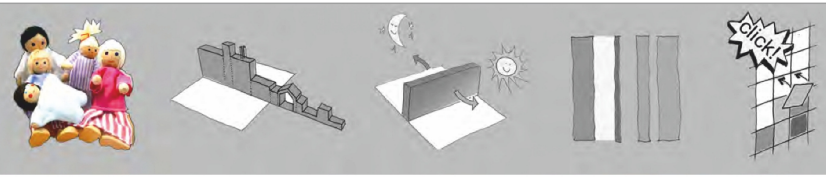


- Adaptable facade
- Shared boundary wall
- Flexible room
- Circulation core
- Exterior space
- Kitchen
- Family bathroom
- Car port





Flexibile Space - A Home for A Lifetime

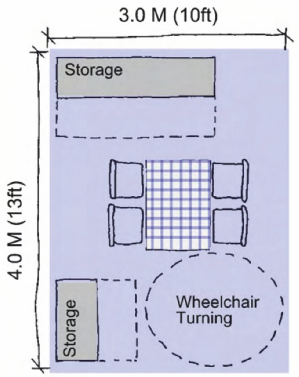


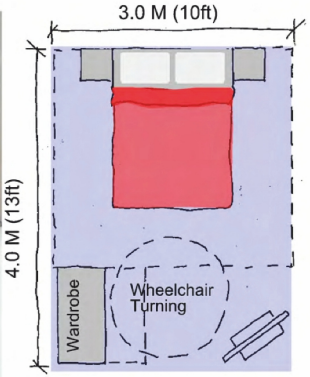
'The flexible rooms are fab! When the kids went to school I started working from home, so we turned the playroom into a home office, just by changing the furniture!'

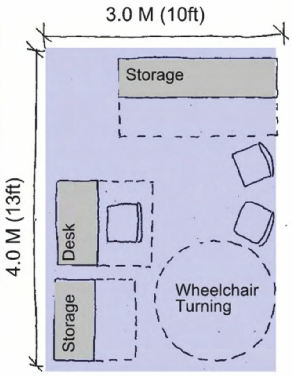
Tina Jones, Resident

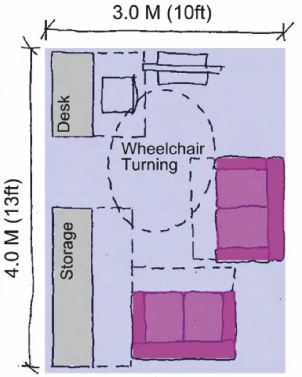
Life is flexible and so should be our houses.

The traditional Cambridge 'two up two down semi detached or terraced house' is still very popular today. Many decades after they were first built they have weathered and adapted to social and technological change.
Our houses build on this by using a combination of 'fixed' rooms (Kitchen, WC, Bathrooms) and 'flexible' rooms based on a standard module accommodating a range of uses.
A flexible room could be a sitting room, a home office for Mum, a ground floor bedroom for Gran, or a playroom for the children.....
Flexible rooms can be arranged to maximise the orientation, living rooms can be at the back of the house to catch the evening sun or at the front of the house to avoid glare on the TV.







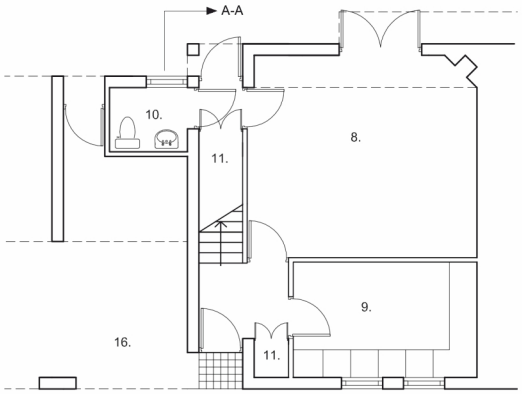


AERIAL VIEW

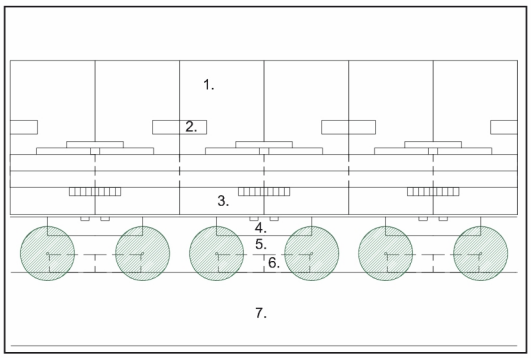
STREET VIEW

FRONT ELEVATION 1:200

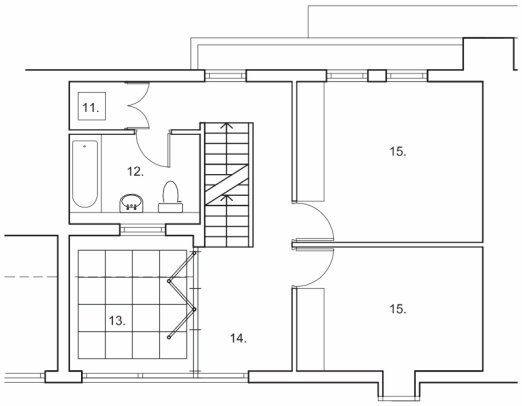
CODE Y87GRXM69V "WING" CAMBRIDGE HOUSING COMPETITION - TOWN HOUSE DESIGN SHEET 2



GROUND FLOOR 1:100



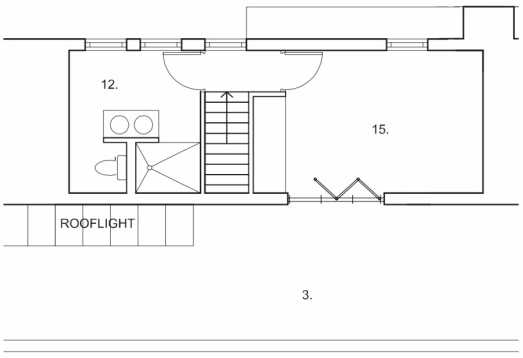
LOCATION PLAN 1:500



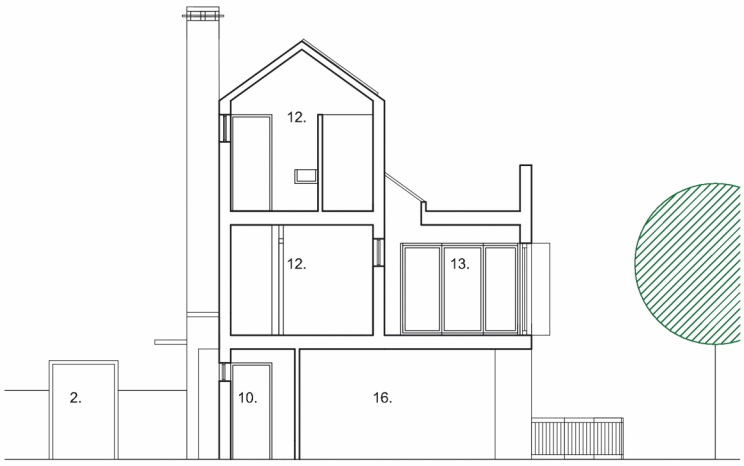
FIRST FLOOR 1:100

KEY

1. Courtyard Garden
2. Cycle/Bin Store
3. Roof Garden
4. Private Landscape
5. Pavement
6. Parking
7. Road way
8. Living Room
9. Kitchen/Dining
10. WC
11. Store
12. Bathroom
13. Solarium
14. Study Area
15. Bedroom
16. Carport



SECOND FLOOR 1:100



SECTION A-A 1:100

REAR ELEVATION 1:200

CODE Y87GRXM69V

"WING" CAMBRIDGE HOUSING COMPETITION - TOWN HOUSE DESIGN

SHEET 1

3_TERRACE HOUSE

The aim of our proposal is to foster a sense of community through the direct interaction between neighbours within a network of growing and working spaces.

Balconies, terraces, and pop-out windows encourage a relationship with exterior spaces.

Internally, rooms overlap, simultaneously connecting the activities of family members throughout the day creating a generous home flooded with daylight.

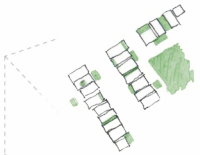
vertical overlapping / shared light and interaction

horizontal overlapping / shared spaces and interaction

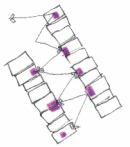
3_TERRACE HOUSE

SECTIONAL AXONOMETRIC *showing types of growing spaces (green), possible work spaces (purple) and interactions*

Encouraging a sense of community through shared and overlapping spaces...



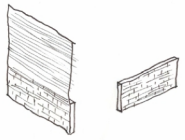
... in a network of growing spaces in and around dwellings



... as well as shared work spaces within homes

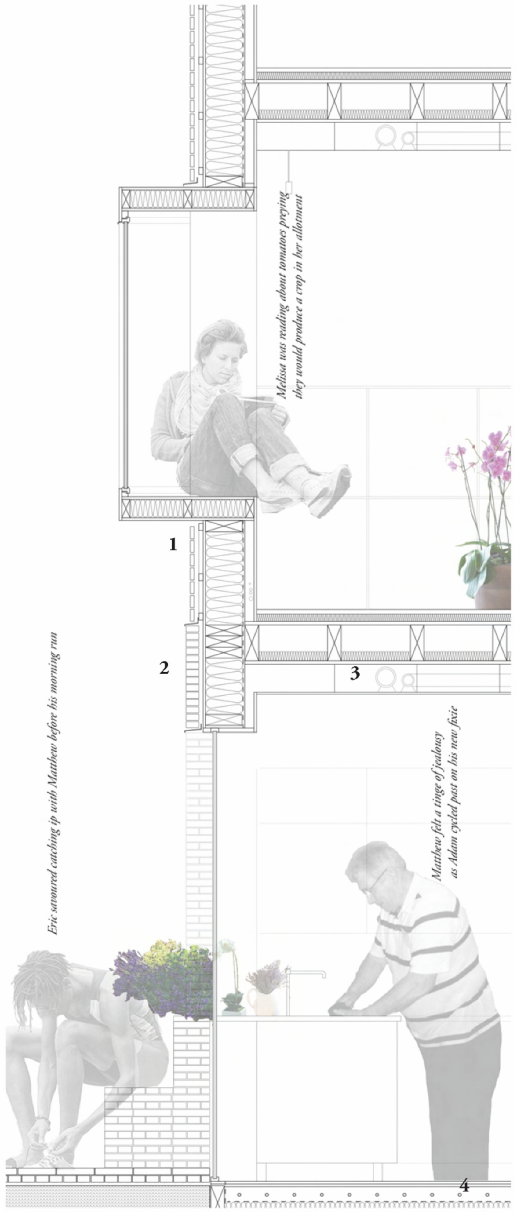
... whilst still making references to the unique Cambridge context...

... through a pronounced hierarchy of floors and fenestration



... and a sensitive and grace-fully aging material palette

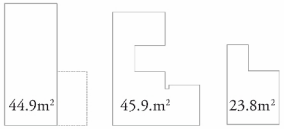
ELEVATION 1:25



DETAIL SECTION 1:25

3_TERRACE HOUSE

/ The GIA is 114.6m², which is at the minimum required.



/ The open plan ground floor, split-level first floor and void in the centre of the plan housing the stairs makes the space feel larger and lighter. Small balconies provide more light and space for growing plants.

/ A small back garden - plots are divided by double-layered brick walls in which planting space is shared with neighbours - opens out onto shared allotments and bbq spaces.

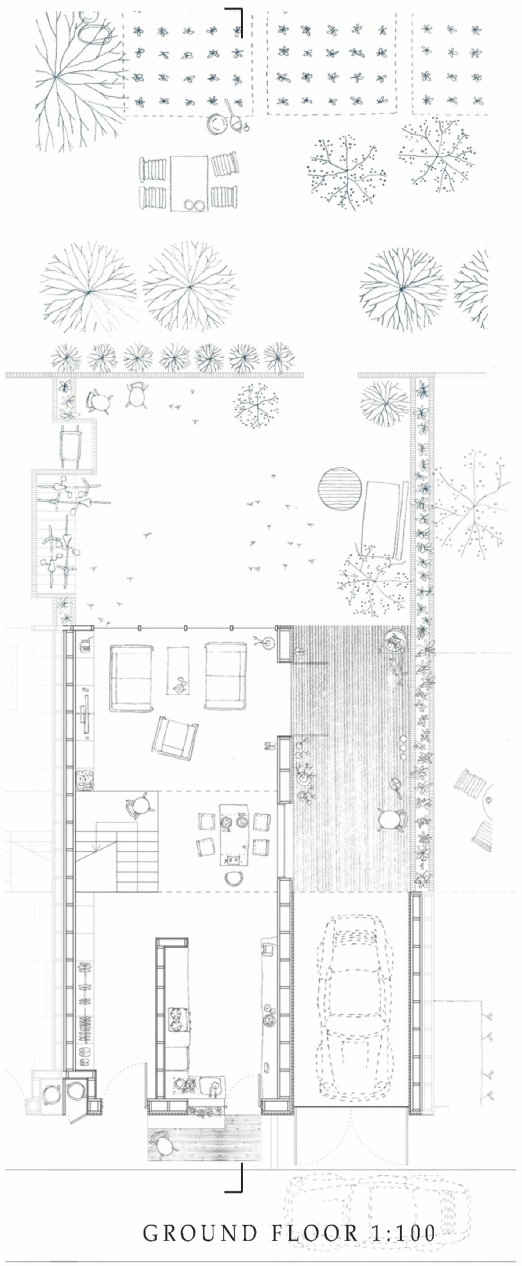
/ A built-in garage on the ground floor removes the presence of cars from the street. Through this, the street becomes a shared space, open to community activities and play.

1 / Highly insulated walls (u value = 0.2) + triple glazed, low-e windows in line with code level 4. This system utilises prefabricated, modular timber construction which keeps costs low.

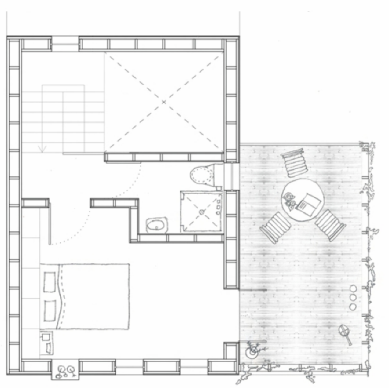
2 / Walls are clad in brick sourced locally from lower Oxford Clay, as well as horizontal Douglas Fir strips, grown in the UK, sustainable material sources. Copper highlights are used on some window boxes to give variation and character to the facade. The timber will weather gradually to turn into a similar colour to match the bricks, and the copper will darken.

3 / Suspended ceilings to provide space for mechanical ventilation in all rooms in line with code level 4.

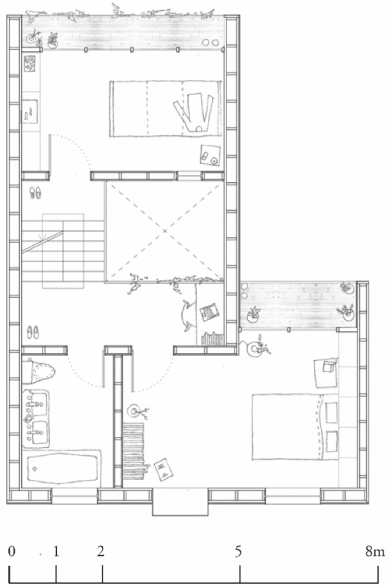
4 / Concrete ground floor slab for thermal mass (utilising solar gains) + underfloor heating systems.



GROUND FLOOR 1:100



2ND FLOOR 1:100



1ST FLOOR 1:100

THE ALL-IN-ONE HOUSE:
SUSTAINABLE + PRE-FABRICATED + ZERO-CARBON + CONTEXTUAL

Street level shops, cafès, pubs etc. create a lively public realm and ensure the integration and long term success of Wing by attracting people from other parts of Cambridge.

Example in section (right):
- 2nd + 3rd floor: duplex family flat (3 beds, 4 persons)
- 1st floor: rented-out 1-bed flat (affordable)
- GF: rented-out senior housing, raised for privacy

Facade construction:
- Solid timber for lateral stiffness
- Wood fiber insulation
- Vertical hung tiles as rainscreen, robust brick slips or tiles on ground floor

Floor construction:
- Solid timber slab, spanning across from party wall to party wall
- Timber flooring on 80mm insulation for optimized sound insulation

Price conscious, prefabricated cross-laminated timber superstructure erected in large segments over a couple of weeks, even during winter. New storeys can be added to flat roof types.

View over Beta Square towards The Titch

‚If I had asked people what they wanted, they would have said faster horses.‘ Henry Ford

Following the 2008 financial crisis, the property market needs a model of minimum risk and maximum flexibility for both developer and buyer. This catalogue house is an ultra-adaptable home that can grow and shrink, and gradually be rented out as smaller units. The houses can be arranged as terraces, semi-detached or detached houses. The plan is structurally free; it can be a house or separated into flats with, for example, senior housing on the ground floor, or a shop, office, café, gallery, workshop or garage.

The slender yet spacious house is available with one of three typical roof shapes, window patterns and building heights, providing maximum variety and complexity when applied on the Wing master-plan and ensuring a *‘memorable and vivid image of the city’* (Kevin Lynch, urbanist). The walls and roofs are clad with clay tiles in typical Cambridge colours, giving each house a homogenous and modern appearance. Constructed with zero-carbon cross-laminated timber panels it can be prefabricated and erected in large segments over a couple of weeks, even during winter. New storeys can be added to flat roof types at a later stage.

Internally the houses are designed to be highly flexible and variable by avoiding load-bearing partition walls. The timber panels can be left exposed or concealed. Plywood or plasterboard lined partition walls can easily be added, be moved or removed, and ensure maximum flexibility over the life-time. The stairs can be separated as semi-public access to rented flats.

The ground floor is fully accessible for wheelchairs and would be particularly suitable for senior residents. The party wall on the ground floor provides a concealed structural opening to enable the future combination of two adjacent flats, for example for flat-sharing. The ground floor can be lowered by 0.5m to provide a 3m high space at street level for use other than housing.

Garage, +0.0m

Shop, GIA 41.5m2, +0.0m

1b/2p-flat, 41.5m2, +0.5m (wheelchair accessible)

1b/2p-flat, GIA 48.5m2

2b/3p-flat, GIA 48.5m2 (storage in external shed)

Ground and upper floor plan options, 1:100

THE ALL-IN-ONE HOUSE:
FUNCTIONAL + FLEXIBLE + MULTI-GENERATIONAL + CONTEMPORARY

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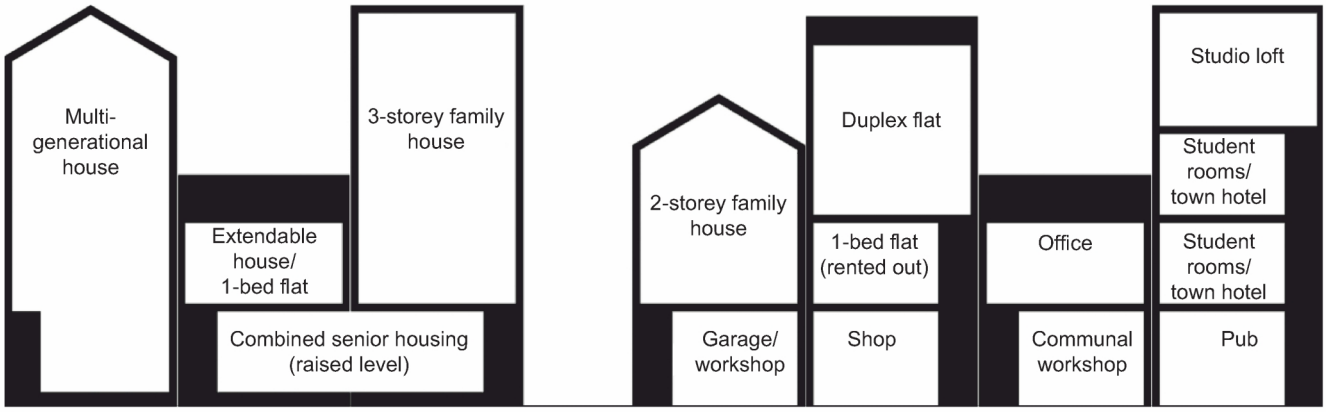
An adaptable house that can grow and shrink with the family and become a 'house of flats' by gradually renting out single floors as flats or office space, or shops or cafés on street level.

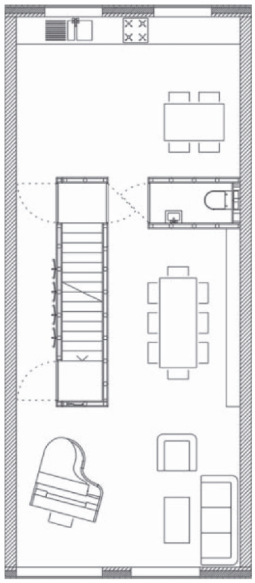
Timber construction with trapped carbon, enhanced insulation and minimum air leakage for eco-conscious, contemporary living and compliant with the Code for Sustainable Homes.

Non-structural stud walls ensure maximum flexibility over the life-time of the house. The walls can be exposed or lined with plasterboard as shown in the model on the table.

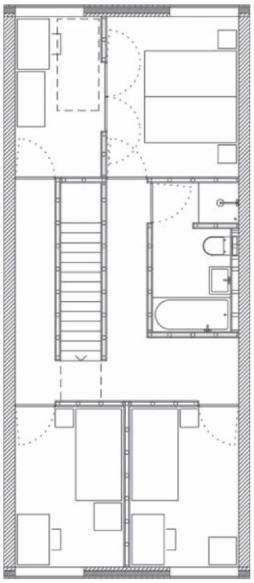
Inside the creative studio loft



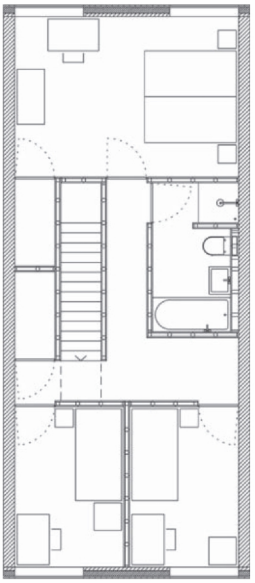
Different use options



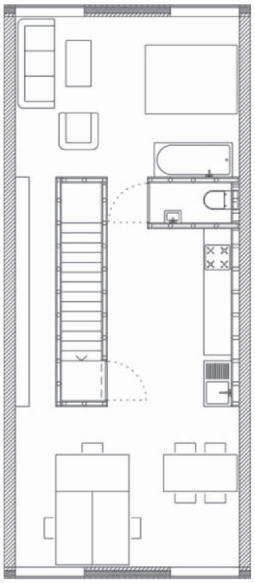
3b/4p-duplex, level 1



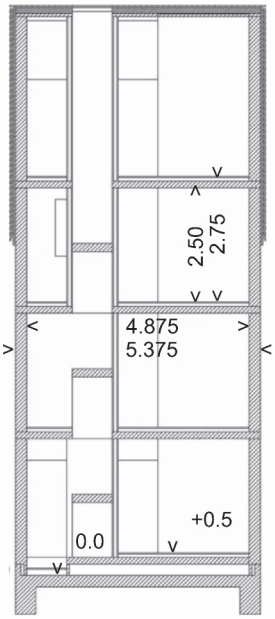
3b/4p-duplex, level 2



3b/4p-duplex, lv2 (option)



Creative studio loft



Upper floor plan options and cross section, 1:100

MEWS HOUSE:

3 BEDROOM 2 STOREY 106-111SQM GIA

46 DPA Architects & CHS

CandCD develop affordable social housing and high quality housing for sale in the open market. As a key local business in Cambridgeshire and as part of a group that has been developing here for more than 80 years, we are well connected to and understand both the private housing market and social housing needs within the county. CandCD have partnered with DPA Architects, an award winning architectural practice who have been based in Cambridge for over 40 years. DPA understand the fundamental design principles to delivering good architecture at affordable prices and our partnership brings a wealth of experience within the City.

47 Saunders Boston

Saunders Boston, (previously James & Bywaters) have been practising Architecture since 1919 and have been based in Cambridge for 50 years. Over this time we have built countless buildings in the city. Key examples include; Januarys' offices, Downing Street (1960s) Gilmerton Court, Trumpington Road (1960s) Bridge Street redevelopment (1970s) the Mong Building, Sidney Sussex College (1980s) the Crescent, Storeys Way (1990s) Botanic Garden kiosk (2000s).

The Saunders Boston DraWing Team have all lived and worked in Cambridge, two of the team were born and went to school in the city returning to work here after completing their architectural education.

48 Michela Barosio & Ottavia Parisi

I've been in Cambridge just once, to study English when I was sixteen years old. For this reason Cambridge means for me "Knowledge" and "Discovery". Knowledge not only of the language, but also of other cultures, other people and other traditions. I discovered for the first time baked potatoes with fresh cream but also first kisses and first heartaches… The sadness of leaving Cambridge at the end of the holidays has been enormous. I've been wondering what living under those trees and those canals would mean, and I'm still looking forward to coming back.

49 Archipelago Architects

A battered orange-covered book found on my grandparent's bookshelf called 'Cambridge new architecture' sparked my interest in architecture as a teenager growing up in Cambridge. The uncompromising forms and tough materials of The History Library and nearby Harvey Court -and other post-war projects from this time -seemed very precisely scaled and cohesive. The ensemble of terraces and green space at Parker's Piece or Jesus Green, as well as the qualities of the landscape around; the Gog-Magog hills and the Roman Road, as well as the Backs, were taken for granted as a background to the character of the city.

50 Mart Barass Architect (Ltd) Mart Barrass RIBA

Elected a Chartered Member of the Royal Institute of British Architects in 1996, Mart has lived and worked in Cambridge for the last 15 years, establishing his own practice in 2010 to focus on the design of innovative, intelligent and sustainable habitats.

Real life experience of growing up on a hill farm in the Yorkshire Dales, studying in the historic city of Oxford and the planned city of Washington DC., with a number of years working in central London and the Alps, inform his outlook and insight into the challenges and benefits of both rural and urban living.

51 Toshiya Kogawa

My relationship with Cambridge began as a tourist from the Far East, admiring from afar the historic context of this venerable university town. And then, as a student, I was able to wander around Cambridge, finding inspiration in the melding of modern architecture and a unique cultural context. More lately, I have enjoyed punting through the beautiful landscape of the river Cam with my young family and walking to Grantchester for tea.

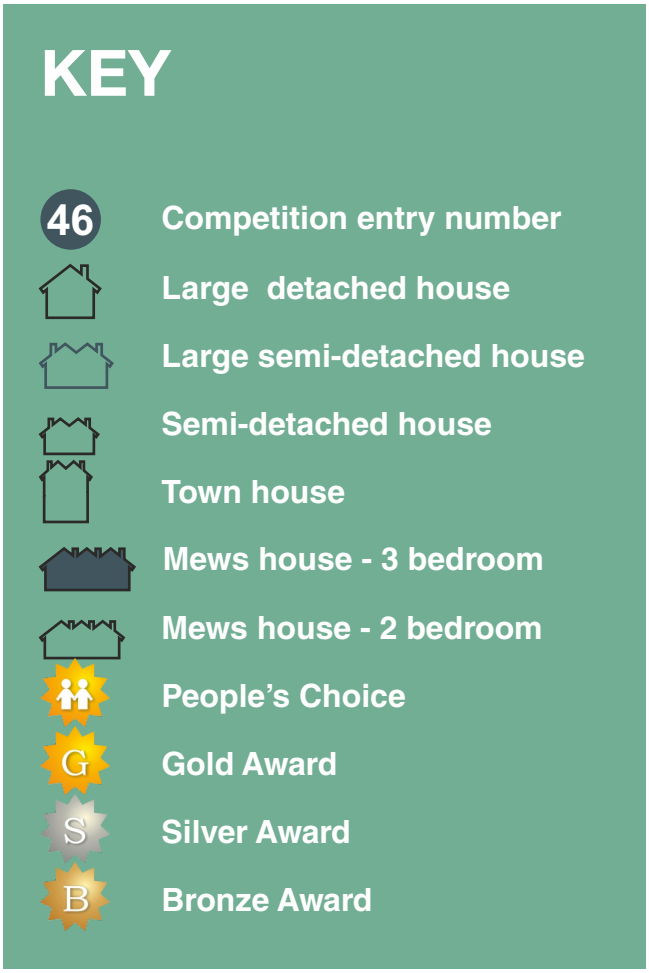
Cambridge has been an endlessly intriguing city through the different stages of my life.

52 Kate Ryle & Patrick Nelson

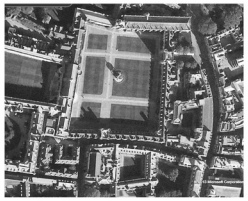
Cambridge is where my parents first met – it is a city for love, friendship and family. Cambridge is where my mother taught environmental science - it is a city for education, biodiversity and nature. Cambridge is where my father designed his furniture – it is a city for beauty, talent and craftsmanship. Cambridge is where my brother studied art and a friend studied architecture – it is a city for learning, history and evolving. Cambridge is where I grew up - this is what Cambridge is to me - a personal, nostalgic and reflective city.

53 Metro Studio UK

MetrostudioUK is an architectural and landscape firm working on projects in architecture, landscape design, interiors and urban and industrial design. Our work has achieved high accolades in Italy and China over the past few years, including awards for our public works. We aim to treat each project uniquely, arranging for strongly motivated experts to contribute to the designs in order to achieve the best results in terms of efficiency and accuracy. Always completed to the highest standards, our designs reflect a modern creativity, reflecting strong concepts and good ideas with an attention to detail and design applied through timeless, simple techniques.



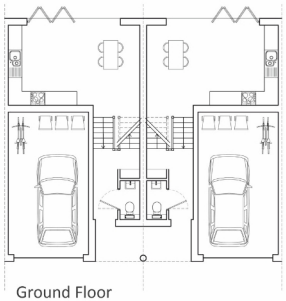
Typical 'Block' Plan Inspired By College Quadrangles



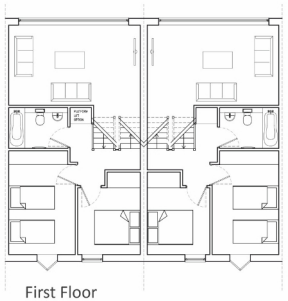
Cambridge College Courtyards

Private Gardens

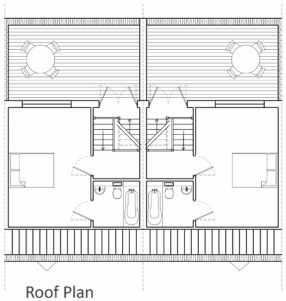
Semi Private Estate
Managed Open Space



Ground Floor



First Floor



Roof Plan

Street Elevation

House Type CENTRAL URBAN QUARTER
Mews House. 3 Bed, 2½ Storey.

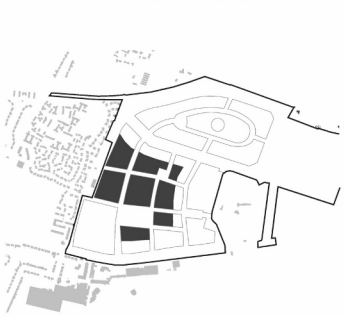
House Area 117.2 m²

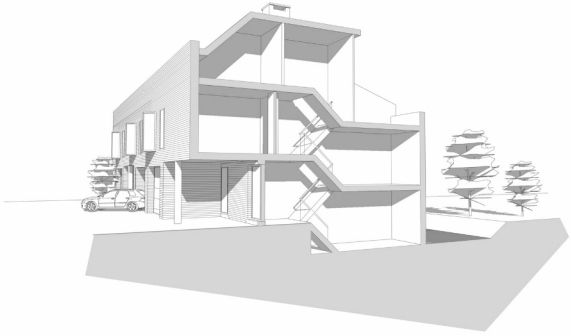
The mews houses are intended to be combined to form long ranges of buildings set around large internal courtyards. The courtyards will be of various sizes and symmetries and fit together to form a typical development "block". The courtyards are semi-public open spaces with a perimeter of private open space associated with each adjoining dwelling. The courtyards are criss-crossed with a network of public footways which pass in and out of the courtyards via "gateways".

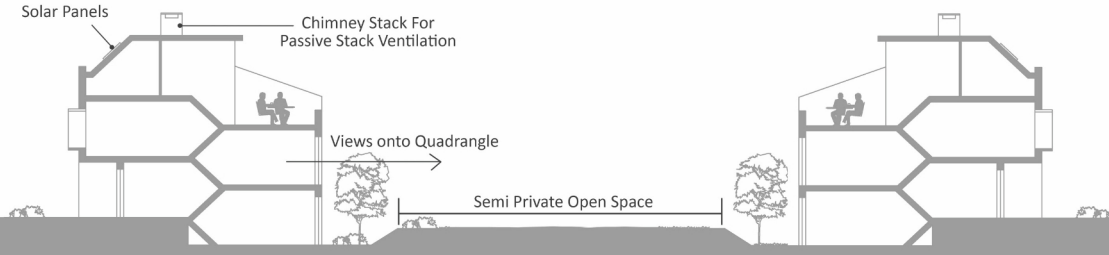
The mews house is of a split-level design with dining/kitchen in the semi-basement backing onto a private garden area. The first floor living room is a generous 1.5 storey height volume with views over the quadrangle. The house type can be varied to incorporate a roof-terrace to provide additional private amenity space.

The front facades (on to the access road) would be in close proximity to each other and articulated with projection oriel windows and deep recesses forming the entrance porches. The proposed materials are a grey/buff brick and slate roof.

The proposal is intended to provide a contemporary high quality, distinctive, close-knit urban environment inspired by the collegiate architecture of central Cambridge and its surrounding medieval street layout.

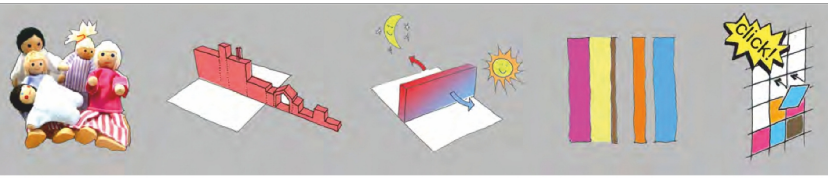




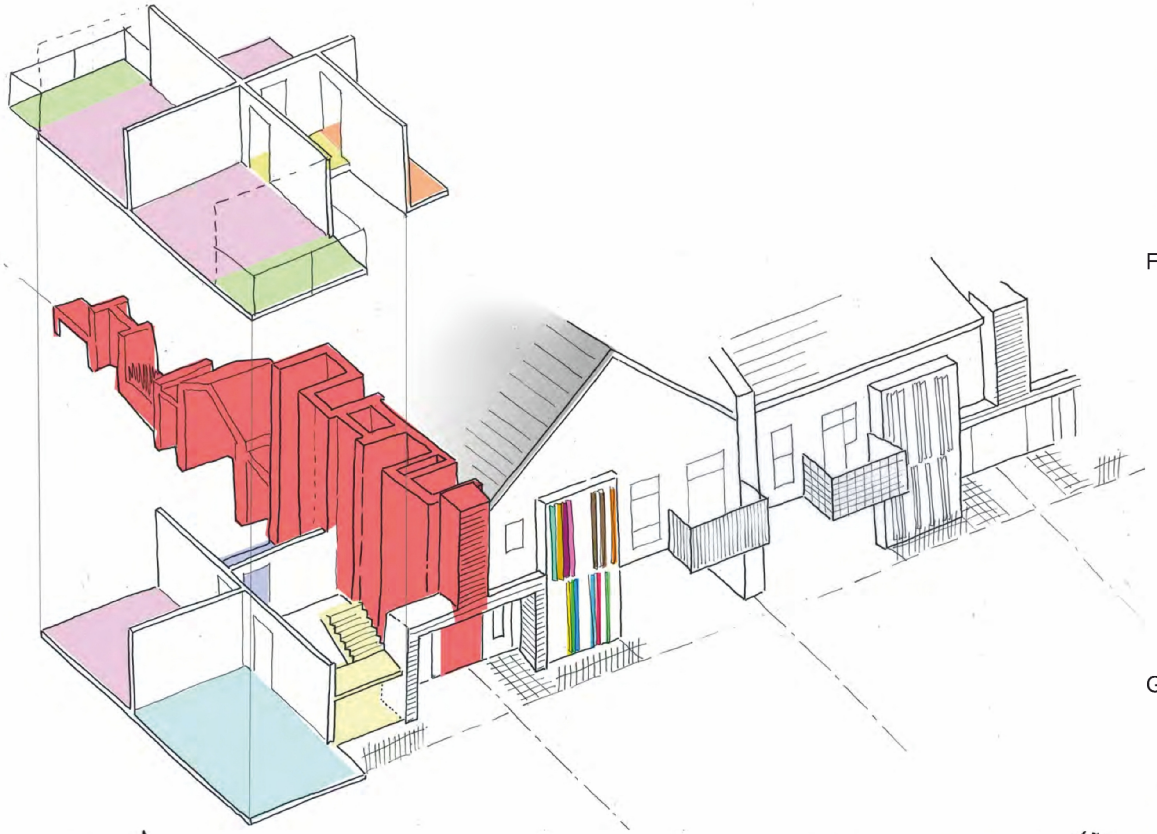


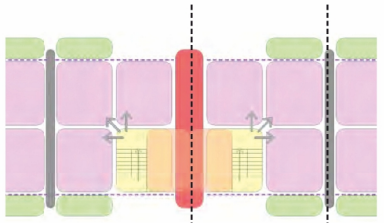
0 2 5 10

House Type - Mews 3 Bed

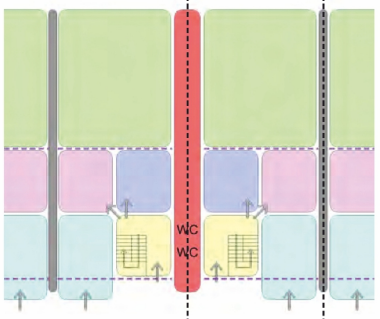


Adaptable facade
Shared boundary wall
Flexible room
Circulation core
Exterior space
Kitchen
Family bathroom
Car port
Dividing wall





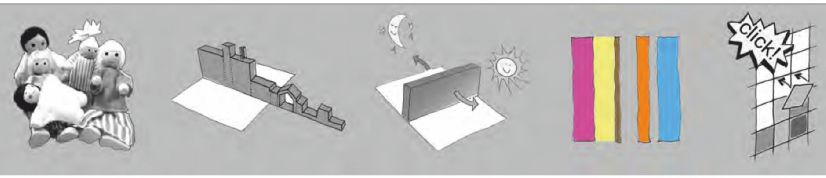
First Floor

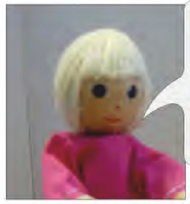


Ground Floor

8m Frontage

Adaptable Façade - The Personal Touch



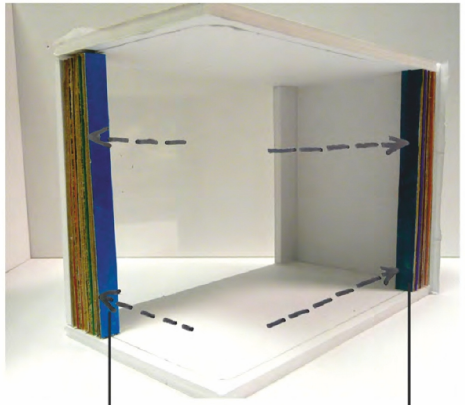


"After I've finished the gardening I love spending the evening on the terrace with a G&T, catching up on my knitting...the grandkids have a great time playing with the shutters too!"

Granny Jones, Resident

Making a house a home is usually limited to the interior of the building. Our proposal provides an exciting opportunity for residents to make their own mark on the neighbourhood.

The use of shutters on walls, balconies and garages will bring both interactivity and adaptability to the houses, allowing residents to bring their own individual aesthetic to the property. Incorporating shutters at street level brings playfulness to an ever-changing streetscape.



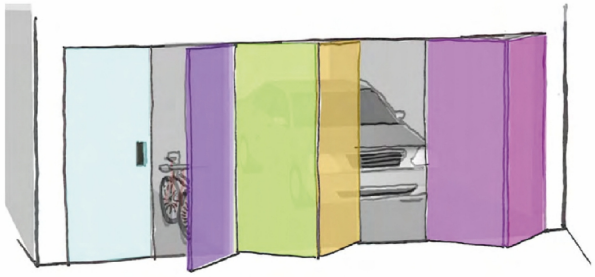
Creates an Open/ Shared Space

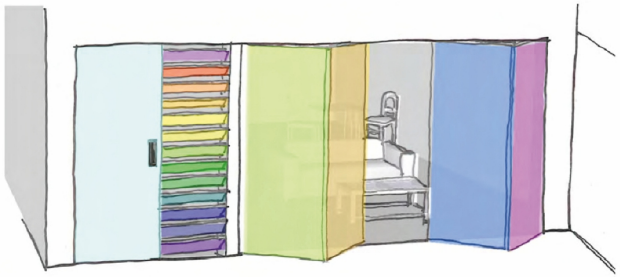
Ease of Storage

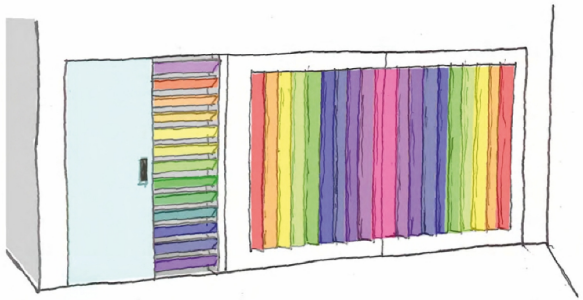
Adaptable Shading/ Privacy

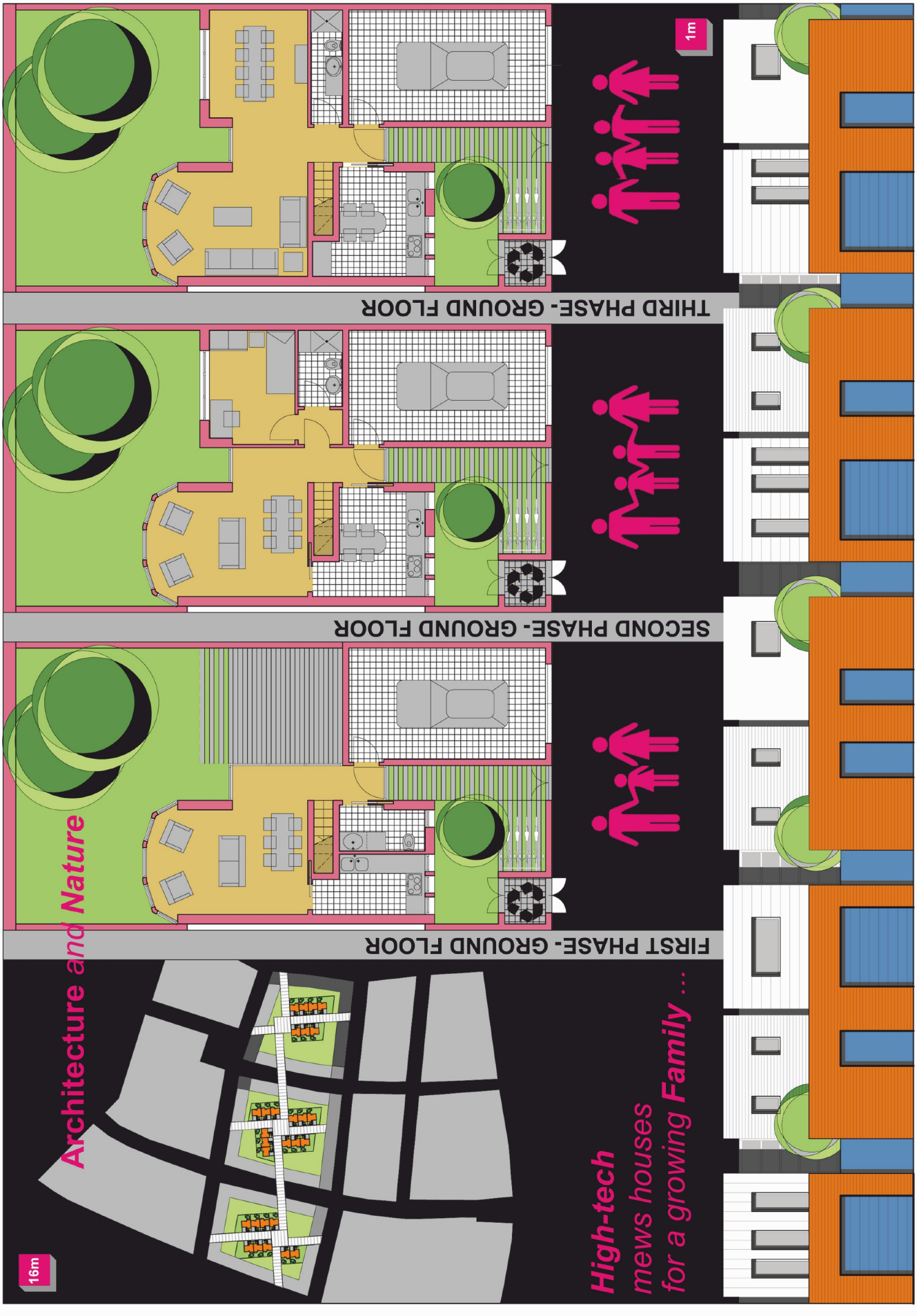
Functional Space for Shelter/Privacy

Interactive 360° Turning Motion







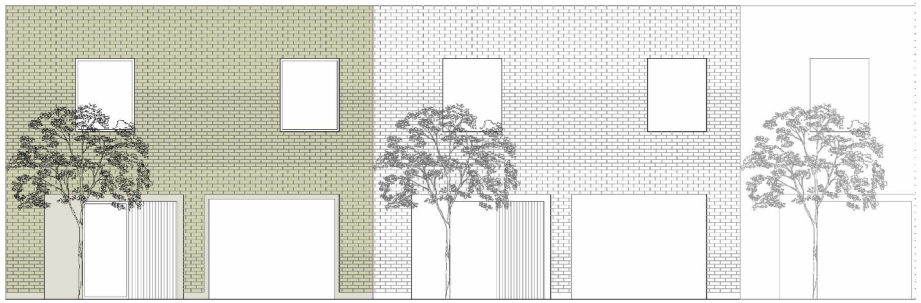


Michela Barosio & Ottavia Parisi

G1
F1
35 sqm + 47 sqm = 82 sqm
G1
F2
35 sqm + 50 sqm = 85 sqm
G2
F2
50 sqm + 50 sqm = 100 sqm
G2/3
F3
50 sqm + 58 sqm = 108 sqm
FIRST PHASE- FIRST FLOOR
SECOND PHASE- FIRST FLOOR
THIRD PHASE- FIRST FLOOR
MEWS HOUSES VIEWS
1m
Heritage:
Cambridge bricks
Private:
Green courtyards
Vibes:
Colourful and various

1

2



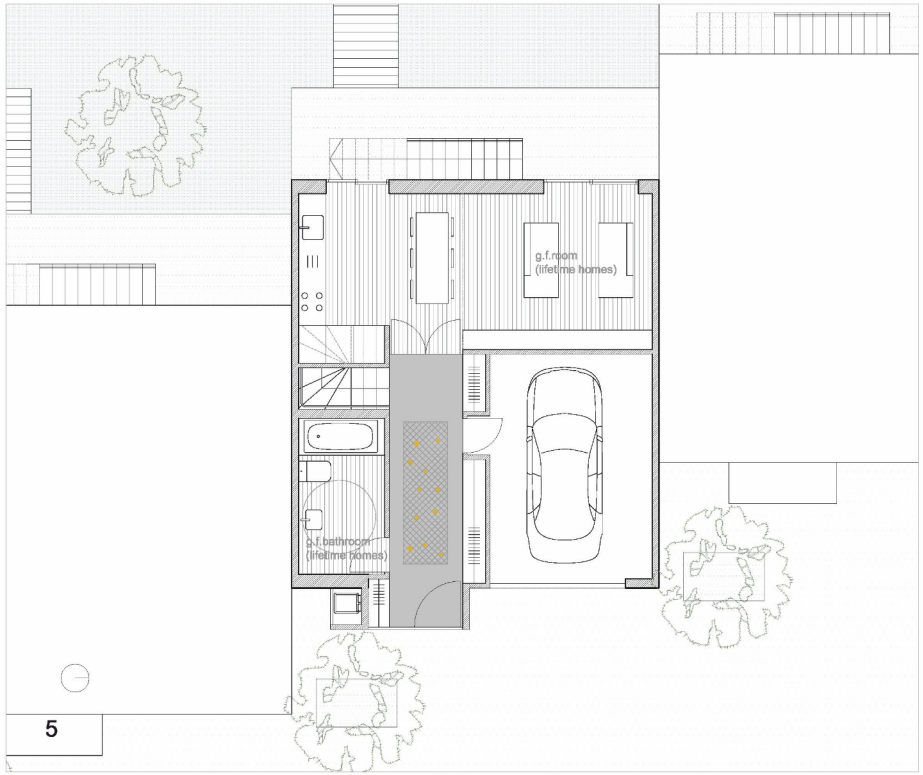
3

4

0 1 5

MEW HOUSE 2 110sqm

1. combination of dweling types 1:1000
2. model view
3. front elevation 1:100
4. rear elevation 1:100



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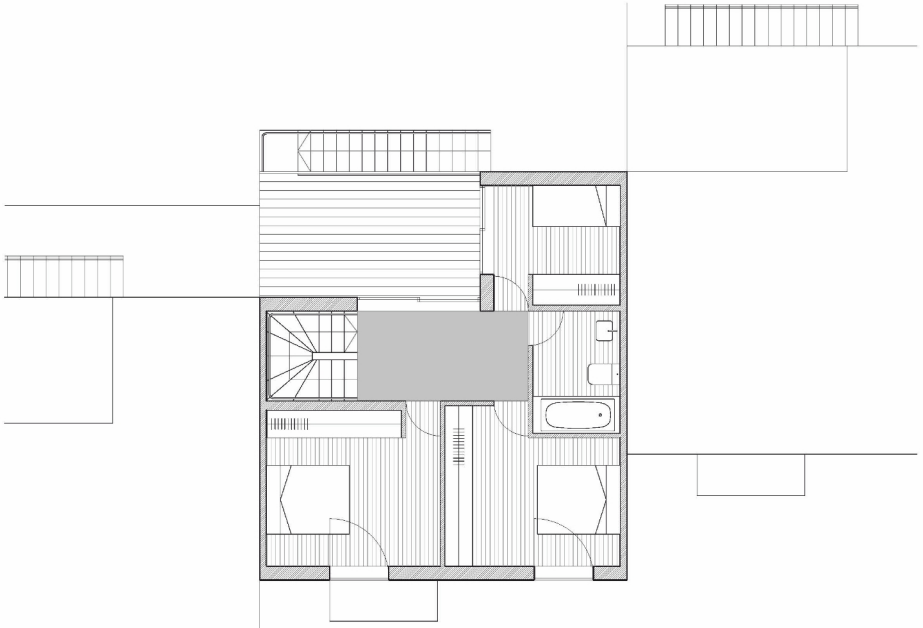

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7

0 1 5

MEW HOUSE 2 110sqm

5. ground floor 1:100
6. first floor 1:100
7.section 1:100

House Type 2

Mews house: 3 bedroom, 2 storey 106-111sqm GIA (8-10m frontage including an integral car port)

CLONE ZONE

"75% of people would not want to live in speculative housing built in the last 10 years"

source: 2010 YouGov public Poll for the RIBA

New Housing Rating:

29% poor	53% average	18% good

source: Commission for Architecture and the Built environment - Housing Audits 2005 and 2007

The essence of Cambridge is:

*"advancement by discovery and innovation through **experimentation**"*

afford to take RISK – allow for FAILURE – learn from MISTAKE – nurture ADVANCEMENT

Britain's Empty Homes: 2011 Census
(homes with no usual residents)

Cambridge	2,121
East of England	112,463
United Kingdom	980,729

provide 100 affordable plots – invite 100 individual clients – appoint 100 Cambridge architects
employ 100 local contractors – build 100 personal homes

HOME ZONE

Top 10 UK house builders 2012: Housebuilder Oct 2013
(by no. of units):

Barratt	12,857	Bellway	5,226
SELF BUILD	**10,940**	Galliford Try	3,039
Taylor Wimpey	10,886	Redrow	2,458
Persimmon	9,903	Bovis	2,355
Berkley Group	3,565	Crest Nicholson	1,882

analyse the results – make adjustments – continue forward

HOMES not HOUSES

*let the people build **their** future and create **their** community*

ENABLE INGENUITY TO FLOURISH

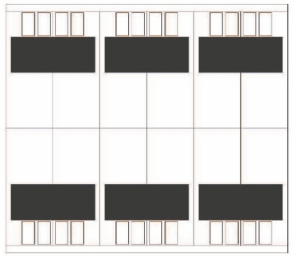
View from street looking through the private garden

Section through the private garden & the communal lawn

OGV5UCXSTI

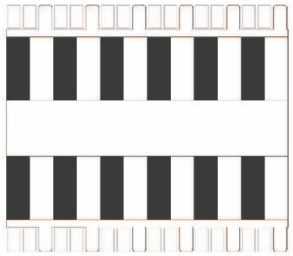
Public art work in Cambridge

Quiet walls and walked stone lead to hidden squares and bursts of persistent lawn.



Typical layout

private garden
facing
back facade
divided by
garden fence



Proposed layout

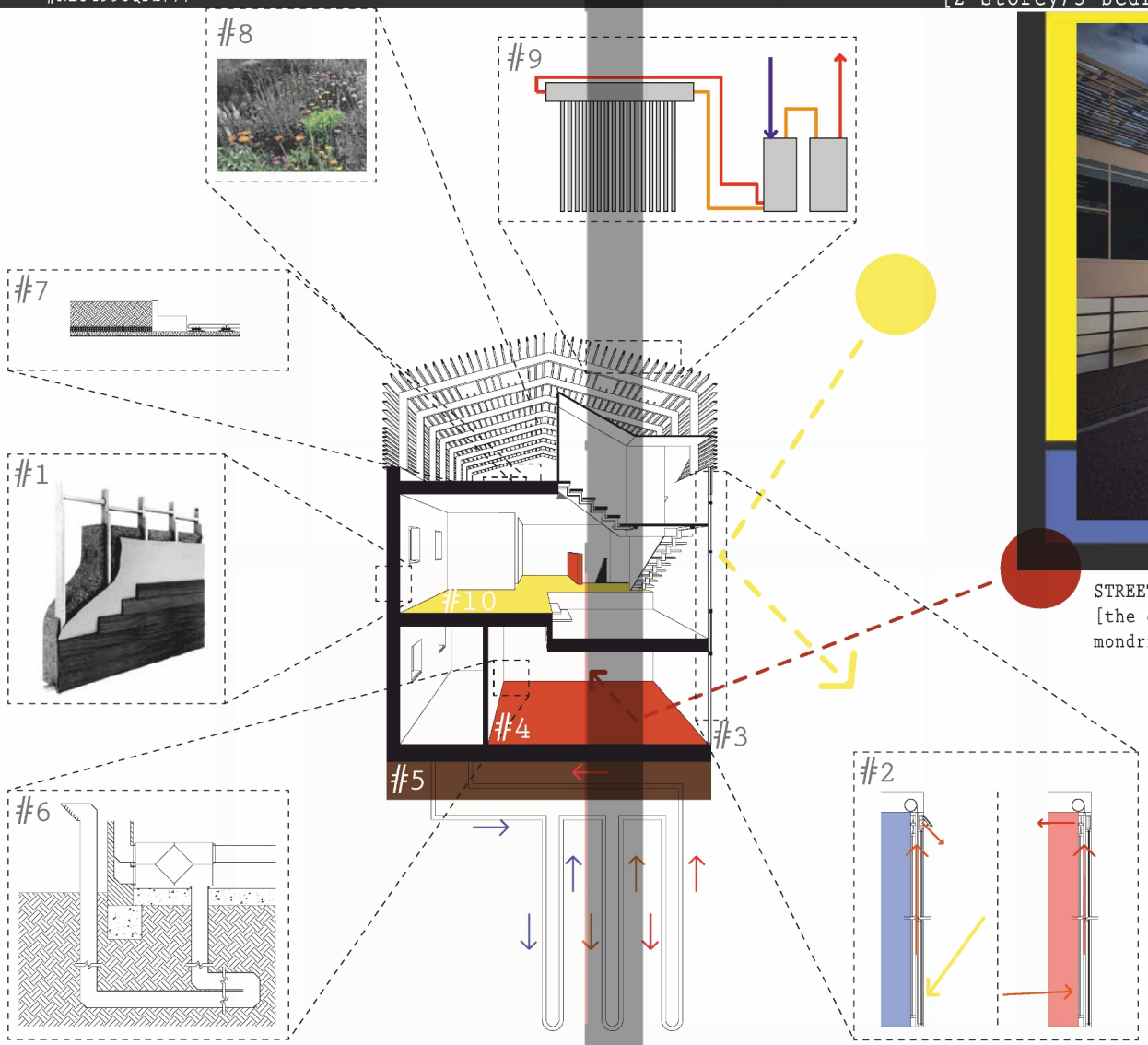
comunal lawn
facing
communal facade
linked by
secret garden

draWING/// a vision for cambridge

#NZ84990QPB///

[2 storey/3 bedroom mew house]

STREET PERSPECTIVE
[the ordered traditional facade is reflected in the mondrian inspired south facing glass facade]



legend///

1.hempcrete insulation
2.double skin glass facade [air circulation]
3.south facing windows///organic DSSC technology and low e reflective glass
4.thermal mass [polished concrete floor///locally sourced limestone vertical wall]
5. geothermal heating
6. heat recovery system [running through ground on intake]
7.600mm rooftop garden insulation
8.promotion of local biodiversity [wildflower meadow]
9.solar hot water system
10.bamboo flooring [all internal materials to be non toxic and low embodied energy]

Kate Ryle & Patrick Nelson

draWING/// a vision for cambridge

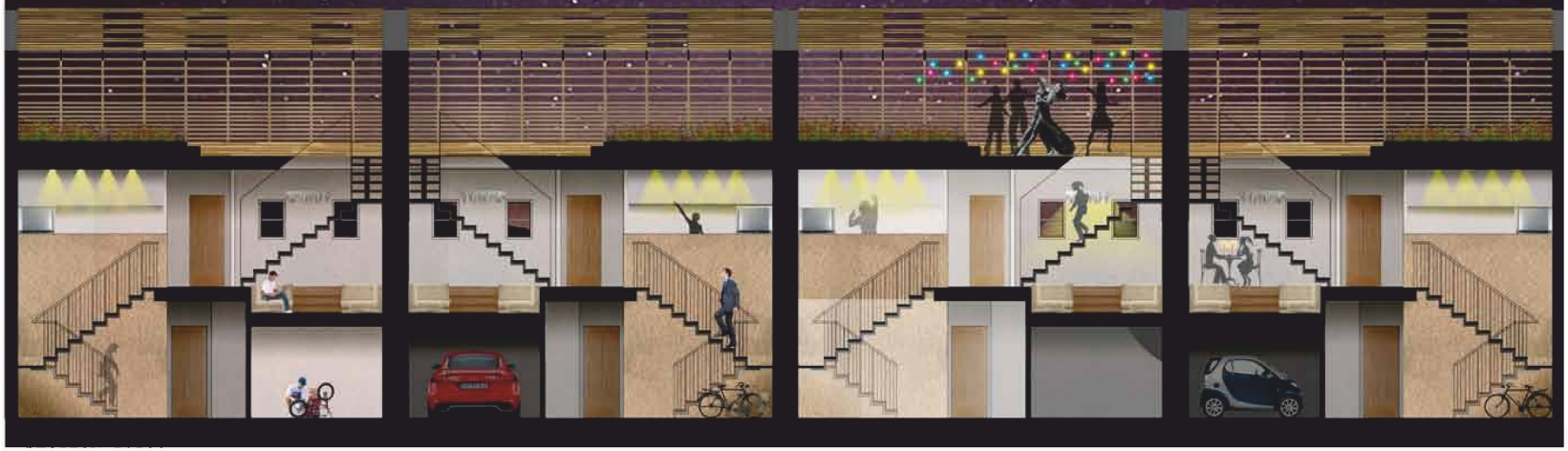
#NZ84990QPB///

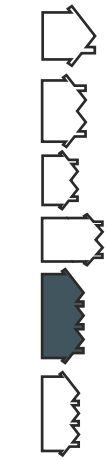
[2 storey/3 bedroom mew house]

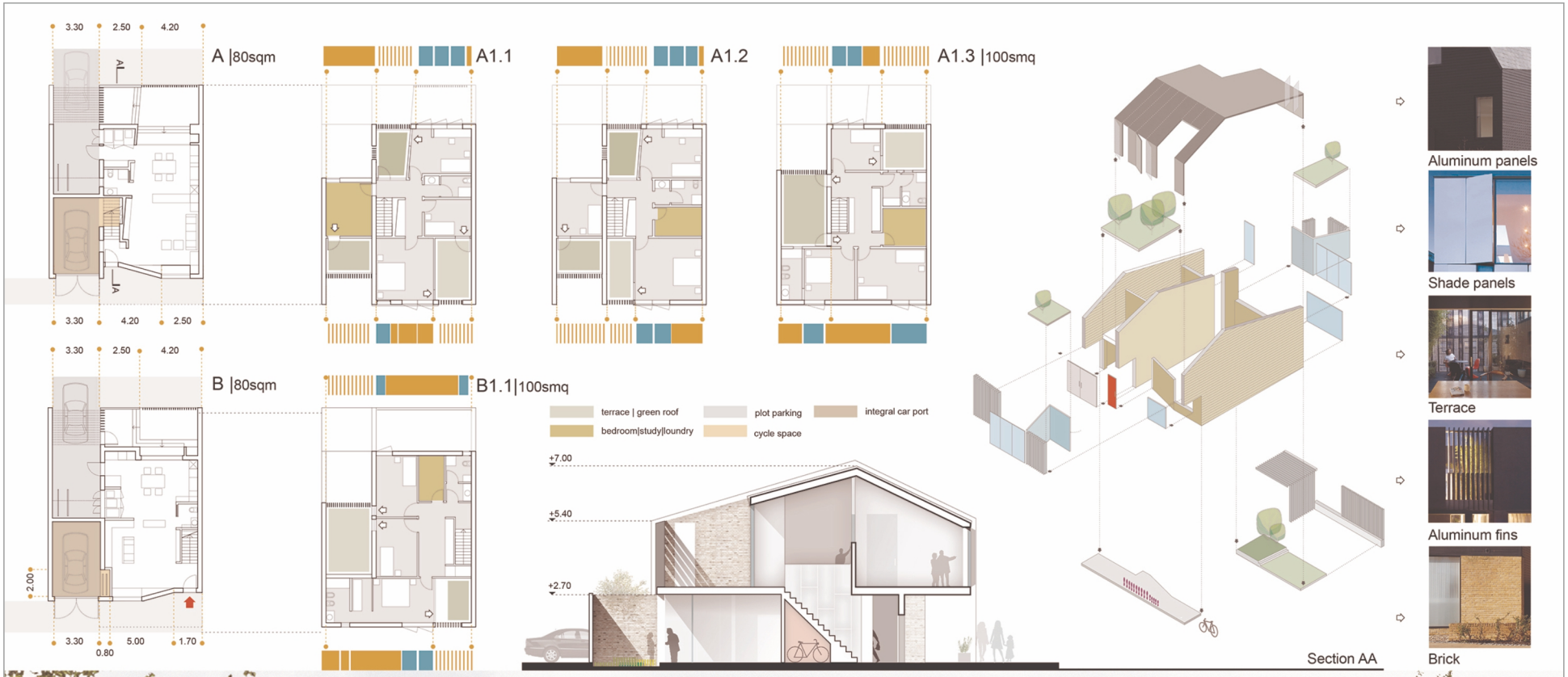
GROUND FLOOR PLAN 1:100

FIRST FLOOR PLAN 1:100

SOUTH ELEVATION 1:100

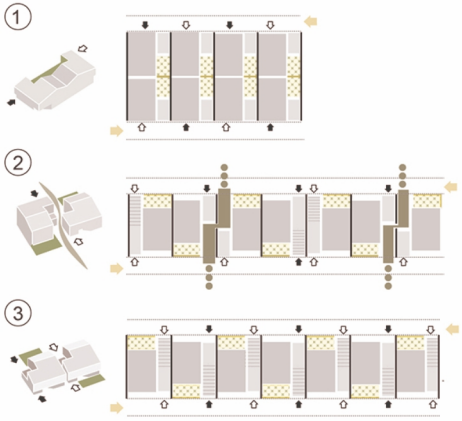


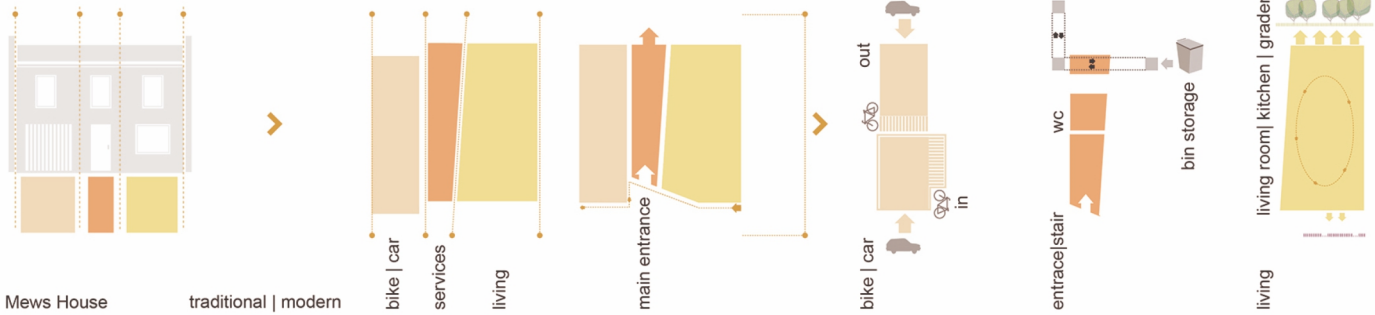


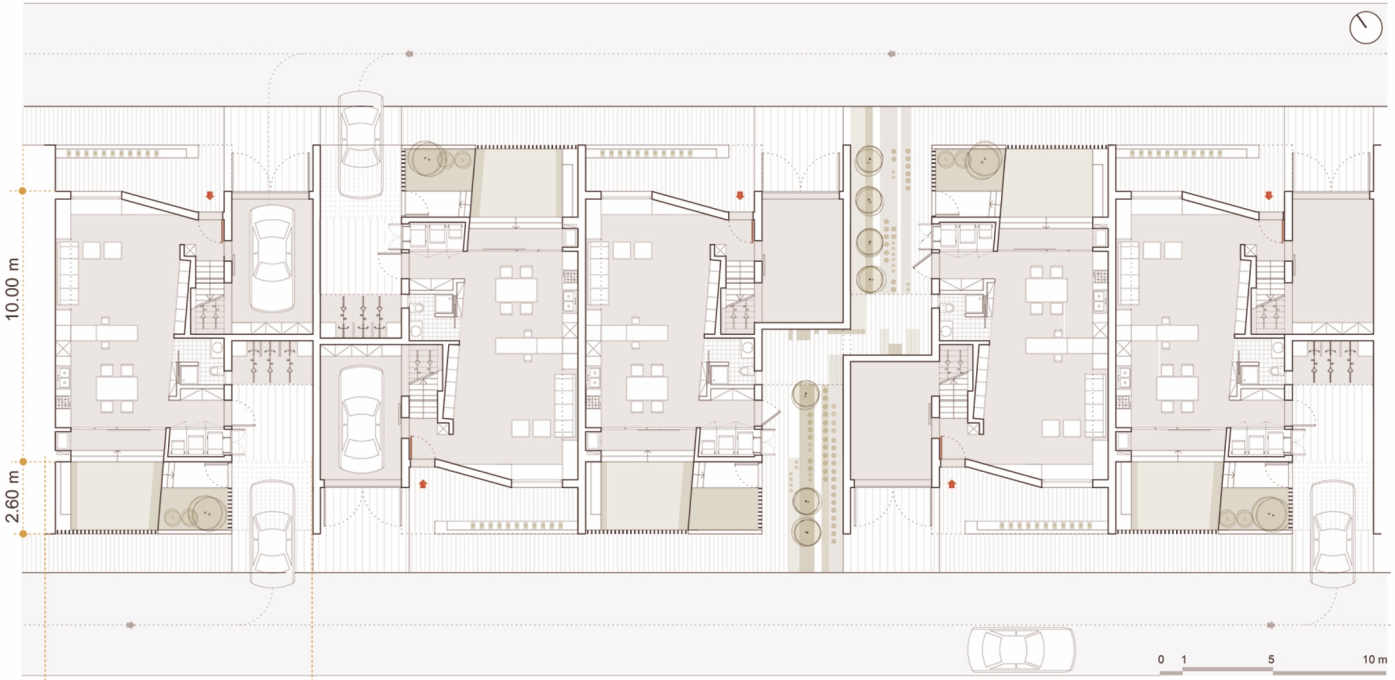

A |80sqm
A1.1
A1.2
A1.3 |100smq
B |80sqm
B1.1|100smq
terrace | green roof
bedroom|study|loundry
plot parking
cycle space
integral car port
+7.00
+5.40
+2.70
Section AA
Aluminum panels
Shade panels
Terrace
Aluminum fins
Brick

Mews House |type 2

3 bedroom | 2 storey | 8-10m frontage + integral car port







MEWS HOUSE:

2 BEDROOM 2 STOREY 83-87.5SQM GIA

54 DPA Architects & CHS

CandCD develop affordable social housing and high quality housing for sale in the open market. As a key local business in Cambridgeshire and as part of a group that has been developing here for more than 80 years, we are well connected to and understand both the private housing market and social housing needs within the county. CandCD have partnered with DPA Architects, an award winning architectural practice who have been based in Cambridge for over 40 years. DPA understand the fundamental design principles to delivering good architecture at affordable prices and our partnership brings a wealth of experience within the City.

55 Jianna Jiyeon Lee

To be honest, I have no direct relation with Cambridge before I participated in Wing competition. But I got a strong impact from the title, 'Wing' which makes me feel an encouragement to lift me up to the sky. Reading the introduction of the competition, the name of Marshall company was also familiar and friendly, because Marshall has been a market place where I often drop by whenever I feel blue, as it is in downtown Minneapolis near my place. So I was happy when I found this competition as if it greets and opens to me just like Marshall.

56 Mart Barass Architect (Ltd) Mart Barrass RIBA

Elected a Chartered Member of the Royal Institute of British Architects in 1996, Mart has lived and worked in Cambridge for the last 15 years, establishing his own practice in 2010 to focus on the design of innovative, intelligent and sustainable habitats.

Real life experience of growing up on a hill farm in the Yorkshire Dales, studying in the historic city of Oxford and the planned city of Washington DC., with a number of years working in central London and the Alps, inform his outlook and insight into the challenges and benefits of both rural and urban living.

57 Archipelago Architects

A battered orange-covered book found on my grandparent's bookshelf called 'Cambridge new architecture' sparked my interest in architecture as a teenager growing up in Cambridge. The uncompromising forms and tough materials of The History Library and nearby Harvey Court -and other post-war projects from this time -seemed very precisely scaled and cohesive. The ensemble of terraces and green space at Parker's Piece or Jesus Green, as well as the qualities of the landscape around; the Gog-Magog hills and the Roman Road, as well as the Backs, were taken for granted as a background to the character of the city.

58 Saunders Boston

Saunders Boston, (previously James & Bywaters) have been practising Architecture since 1919 and have been based in Cambridge for 50 years. Over this time we have built countless buildings in the city. Key examples include: Januarys' offices, Downing Street (1960s) Gilmerton Court, Trumpington Road (1960s) Bridge Street redevelopment (1970s) the Mong Building, Sidney Sussex College (1980s) the Crescent, Storeys Way (1990s) Botanic Garden kiosk (2000s).

The Saunders Boston DraWing Team have all lived and worked in Cambridge, two of the team were born and went to school in the city returning to work here after completing their architectural education.

59 Tom Reynolds (Pollard Thomas Edwards)

I grew up in the Fens. From a young age Cambridge has had an effect on me and played a part in my choice to become an architect. Today it is a renowned global city, defined by a tradition of learning and innovation. Though for me Cambridge will always be the mysterious confluence between the ancient and the modern, the known and the sought, the wilderness of the Fens and the civilisation of the city. In a time where urbanisation homogenises cities, Cambridge synthesises the old and the new - quietly resilient yet open to the future.

60 Freeland Rees Roberts

Freeland Rees Roberts, established in 1981, have designed houses, and worked on hundreds of house alterations and extensions for all types of Cambridge houses, as well as new residential accommodation for local developers and college student rooms.

Most Cambridge clients have similar desires: more light, better access to outdoor amenity space, improved insulation and consideration of renewable energy sources; plus an appreciation of contemporary design using traditional local materials.

Having worked on Cambridge houses dating from medieval through to modern designs, we have developed a sense of characterisations and evolution of the Cambridge house.

61 MWSOGL

Our inspiration for this project came from observing the act of selling home-made produce in front gardens on roads in the Cambridgeshire countryside. In parallel, we have always found the predominance of cycling in Cambridge fascinating, and the spirit of the inhabitants of the city to collectively embrace an alternate mode of transport.

Based on this, we were interested in creating a network where each individual unit contributes to a whole – thus each house has been given the opportunity to grow plants and food which, collectively, creates a network of exchange of physical goods and social interactions.

62 Clemente Sanfelice di Monteforte

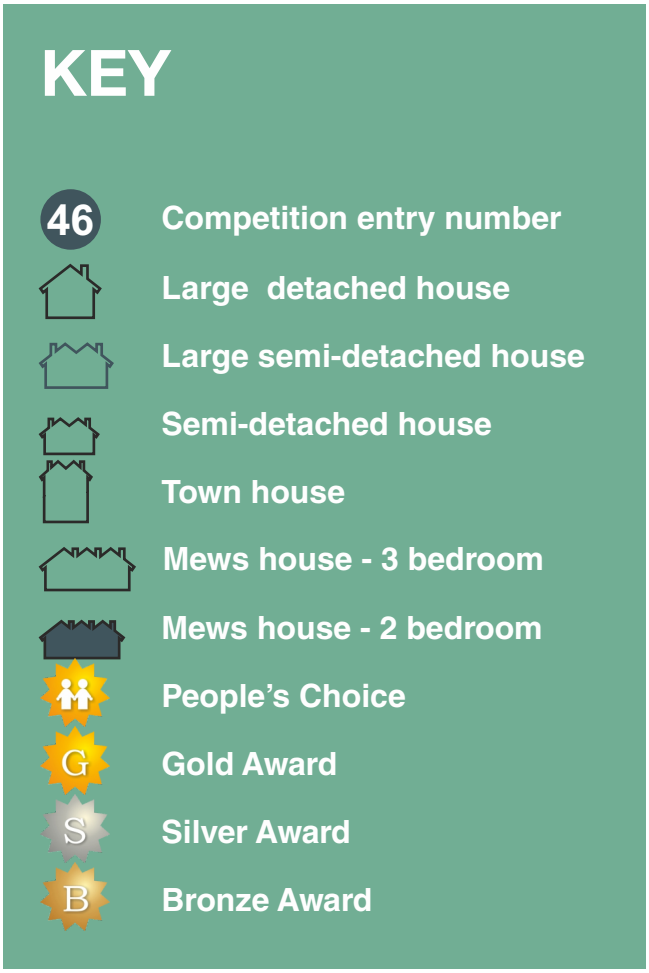
Design choices arise fom an analysis of the context and a sensitivity towards environment, creating a contemporary sustainable living space.

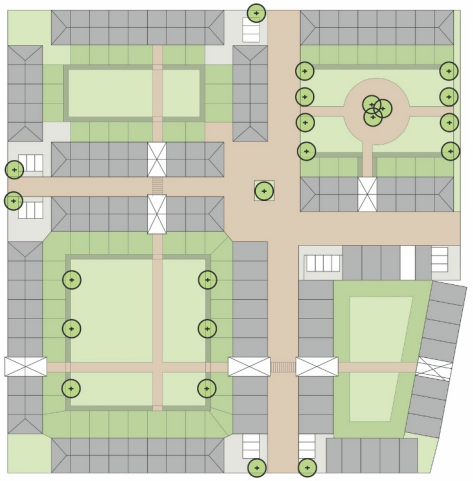
Areas, heights and doorways comply with Lifetime Homes Criteria; different configurations are specifically planned for groundfloor, adaptable for every need.

Type, position and size of windows permit making the most of sunlight..

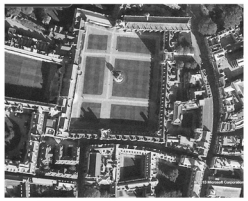
Solar and photovoltaic panels guarantee production of hot water and clean energy.

Rainwater is collected through the walls in a cistern and used for the discharge of sewerage and plant irrigation. Ecofriendly technologies are used within the five main elements of the building, ensuring Level 4 of the Code for Sustainable Houses.





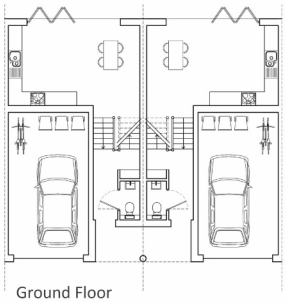
Typical 'Block' Plan Inspired By College Quadrangles



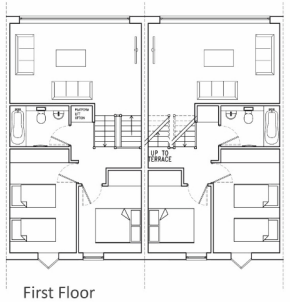
Cambridge College Courtyards

Private Gardens

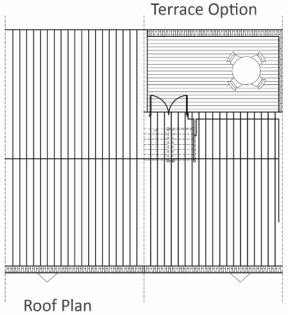
Semi Private Estate
Managed Open Space



Ground Floor



First Floor



Terrace Option

Roof Plan

Street Elevation

House Type CENTRAL URBAN QUARTER
Mews House. 2 Bed, 2 Storey.

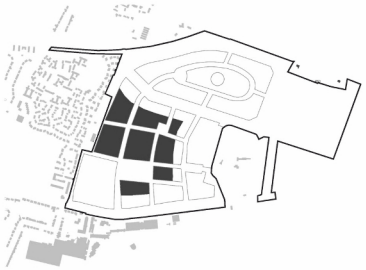
House Area 87.0 m²

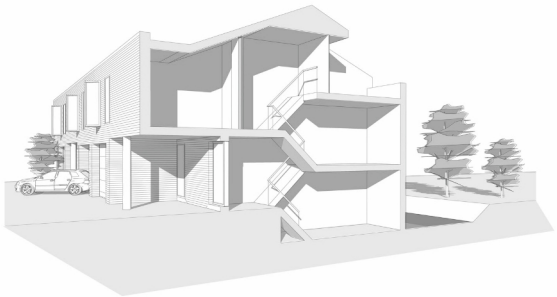
The mews houses are intended to be combined to form long ranges of buildings set around large internal courtyards. The courtyards will be of various sizes and symmetries and fit together to form a typical development "block". The courtyards are semi-public open spaces with a perimeter of private open space associated with each adjoining dwelling. The courtyards are criss-crossed with a network of public footways which pass in and out of the courtyards via "gateways".

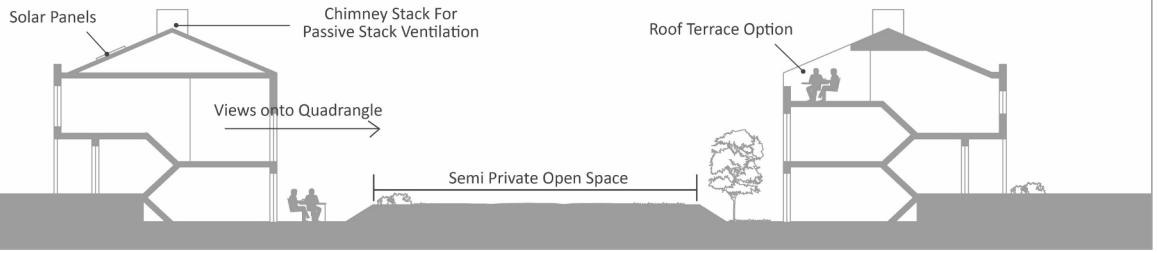
The mews house is of a split-level design with dining/kitchen in the semi-basement backing onto a private garden area. The first floor living room is a generous 1.5 storey height volume with views over the quadrangle. The house type can be varied to incorporate a roof-terrace to provide additional private amenity space.

The front facades (on to the access road) would be in close proximity to each other and articulated with projection oriel windows and deep recesses forming the entrance porches. The proposed materials are a grey/buff brick and slate roof.

The proposal is intended to provide a contemporary high quality, distinctive, close-knit urban environment inspired by the collegiate architecture of central Cambridge and its surrounding medieval street layout.







MEWS HOUSE

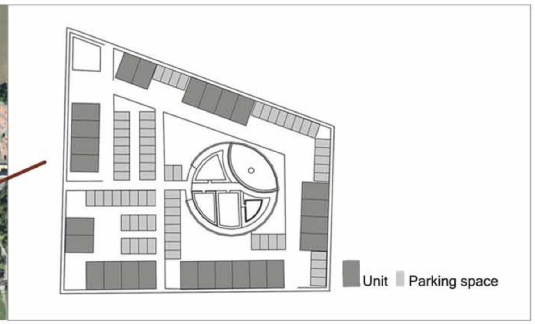
2 BEDROOM, 2 STOREY 83-87SQM GIA (7.5-9.5M FRONTAGE)

The Mews House layout development is a proposal aimed to provide for a simple and efficient home for small size families. As primarily built along the paved Newmarket Road, the 2,4,6 plex Mews houses in small frontage (one unit, 5m x 8m) are proposed to occupy Wing, Marshall owned land bewteen North work area and Park and Ride. With a good access for public transpotaion such as bus lines and train, the site where the Mews house located take its advanatage to allow the integration of neighborhood communities. Continous with the characteristics of existing residential area on the northern Newmarket Road boulevard, the group of Mew houses takes over Wing area where faces the Marshall airport.

Adapting to the rural environment of neighborhood, the Mews house has designed to be enclosed to the place placing each plexed houses at the edge of street corners. Parking spaces are distributed as 2 cars per one unit. Shown on the layout of site plan, the parking spaces are organized on the ground, taking over the inside area behind the dwellings. The exit and entry of the housing complex is open to all surrounding four sides of the site.

Considering the resilience for a safe, enclosed, and beautiful place, Copper Beech trees are planted at the boundary and corner of Mews houses. Benches and tables are placed outdoor for the entertainment of activities. At the center of dwelling complex,the specialized fountains, swimming pool, sports activities' courts, and walking trail are provided for relax and welling being for residents of Mews house.

THE SITE



PHYSHICAL LAYOUT

CENTRAL REST/OUTDOOR ACTIVITY ZONE

CORNER VIEW FROM SOUTHWEST

PROPOSED DEVELOPMENT

The area between Northwork and Park and Ride is choosen as a proposal for Mews House design project. The 2,4,6 plex Mews house types are surrounding the boundary of the site with spacious parking area and rest/outdoor activity zone inside the dwelling complex.

MEWS HOUSE ELEVATION

SOUTH ELEVATION NORTH ELEVATION

The proposed Mews House is primarily modernised and designed in the way to coordinate with the surrounding house of Fen Ditton, Cambridge as well as to make an efficient use of the site in establishing the integrated urban fabric. Mostly, the surrounding house in Fen Ditton. The house has a simple look for out facade with minimum shape, but indoor space is emphasizingly more miximized to use the space in a way more effectively. The appearance of Mews House is fundamentally based on the idea of "mirroring" through which one house unit attaches right next to the other unit like a mirror. By summing up each unit, therefore, the overall even numbered Mews House plex is assumed as a modified form of flat and moderate house. Alligning along the side of boundary, Mews house is built mainly along Newmarket Road and the other sides of site boundary.

The roof of one unit to the other, the overall shape provides a modern enrichment of triangular roofing which is unaffectedly and neutrally connected to the tradional England thatching and gable-styled roof. In the desire of sustainable house design, heat-treated timber woods regarded as an excellent material cladding the roof which does not need a chemical preservative and maintains its durability at the same time.

On the top of the roof, green plantation supports the reduction of carbon emission produced in building itself, which improves the air quality of the environment. Simultaneouly, the green roof provides the valuable green space for each dweller living in the unit to spend the nice time outside air, having teas and recreation. The stair case connected to the roof top is contained in a glass box having a door to get access to the green space.

The timber cladding has been used for the back and side facade of Mews House and light-colored exterior wooden wall supports a virtue of continuity connecting with surrounding rural green plantation. White Stucco/Paint color finish on exterior wall is applied on the front and back wall in a golden match with the wooden materials.

Especially, the Mews House is designed thinking of how to relate traditional design to modern design. In order to make a balanced design between the two, a white door with arch and columns is added to the front exterior as to achieve traditional touch upon the desgin. Whereas, the back facade of the house is edged by curtain wall that is supposed as a modern fashion translucently makes the inside visable from the outside.

MEWS HOUSE FLOOR PLAN (2 BEDROOM, 2 STOREY 83-87.5 SQM)

FIRST FLOOR SECOND FLOOR GREEN ROOF

FIRST FLOOR INTERIOR SECOND FLOOR INTERIOR GREEN ROOF

Windows placing at each 2 bed rooms provide effective lighting to the internal space of the house. Daylighting is a primary source of daytime illumination according to the visualized accuancy of daylight.

FIRST FLOOR		SECOND FLOOR		GREEN ROOF	
LIVING/DINING	APP. 35.6M²	ROOM 1	APP. 3.22M X 3.88M	AREA	APP. 39M²
BATH ROOM	1.34M X 1.53M	ROOM 2	APP. 4.60M X 2.77M		
LAUNDRY ROOM	1.34M X 1.77M	BATH ROOM	1.52M X 2.66M		

House Type 1

Mews house: 2 bedroom, 2 storey 83-87.5sqm GIA (7.5-9.5m frontage)

CLONE ZONE

"75% of people would not want to live in speculative housing built in the last 10 years"

source: 2010 YouGov public Poll for the RIBA

New Housing Rating:

29% poor	53% average	18% good

source: Commission for Architecture and the Built environment - Housing Audits 2005 and 2007

The essence of Cambridge is:

*"advancement by discovery and innovation through **experimentation**"*

afford to take RISK – allow for FAILURE – learn from MISTAKE – nurture ADVANCEMENT

Britain's Empty Homes: 2011 Census
(homes with no usual residents)

Cambridge	2,121
East of England	112,463
United Kingdom	980,729

provide 100 affordable plots – invite 100 individual clients – appoint 100 Cambridge architects
employ 100 local contractors – build 100 personal homes

HOME ZONE

Top 10 UK house builders 2012: Housebuilder Oct 2013
(by no. of units):

Barratt	12,857	Bellway	5,226
SELF BUILD	**10,940**	Galliford Try	3,039
Taylor Wimpey	10,886	Redrow	2,458
Persimmon	9,903	Bovis	2,355
Berkley Group	3,565	Crest Nicholson	1,882

analyse the results – make adjustments – continue forward

HOMES not HOUSES

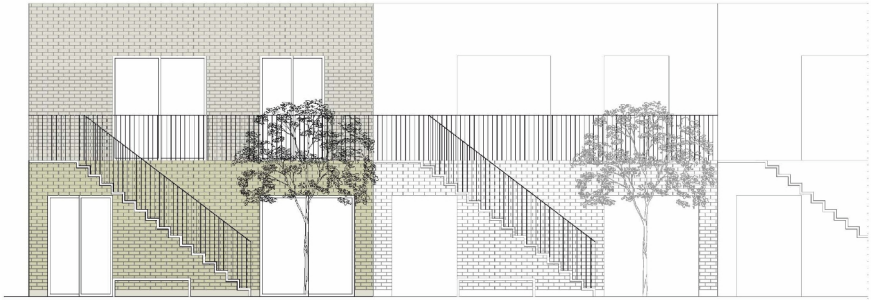
*let the people build **their** future and create **their** community*

ENABLE INGENUITY TO FLOURISH

1

2

3

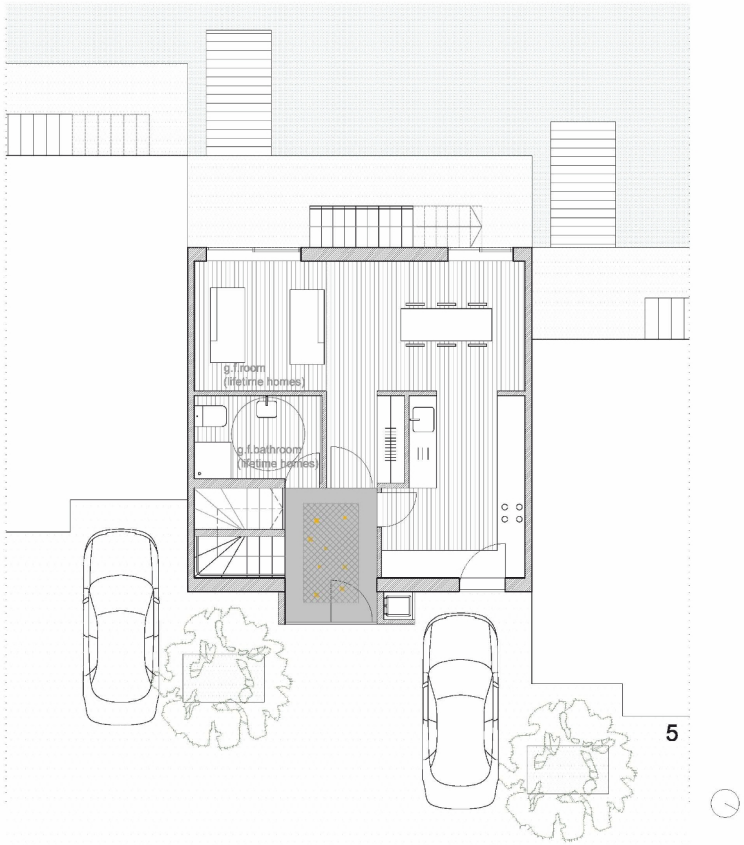


4

0 1 5

MEW HOUSE 1 86sqm

1.combination of dweling types 1:1000
2. model view
3. front elevation 1:100
4. rear elevation 1:100



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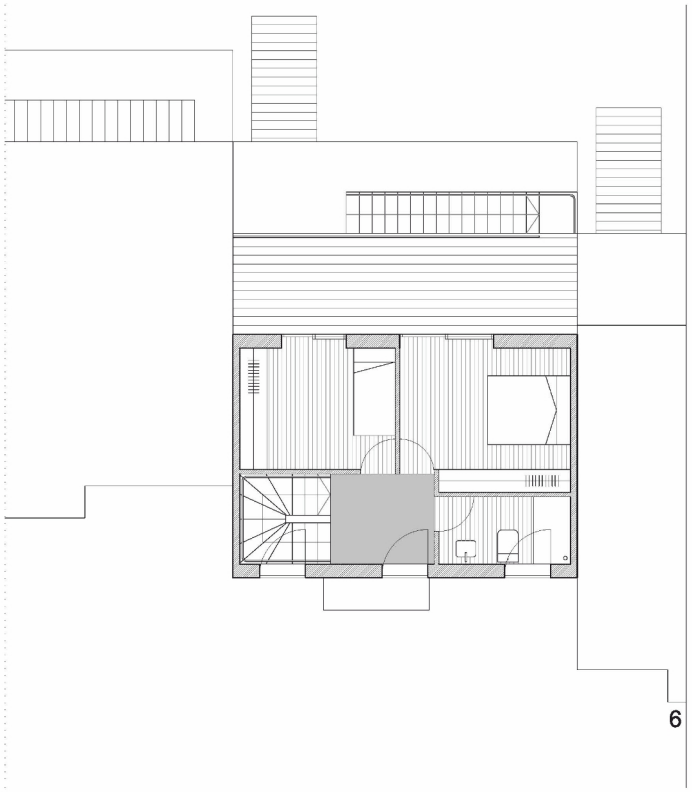

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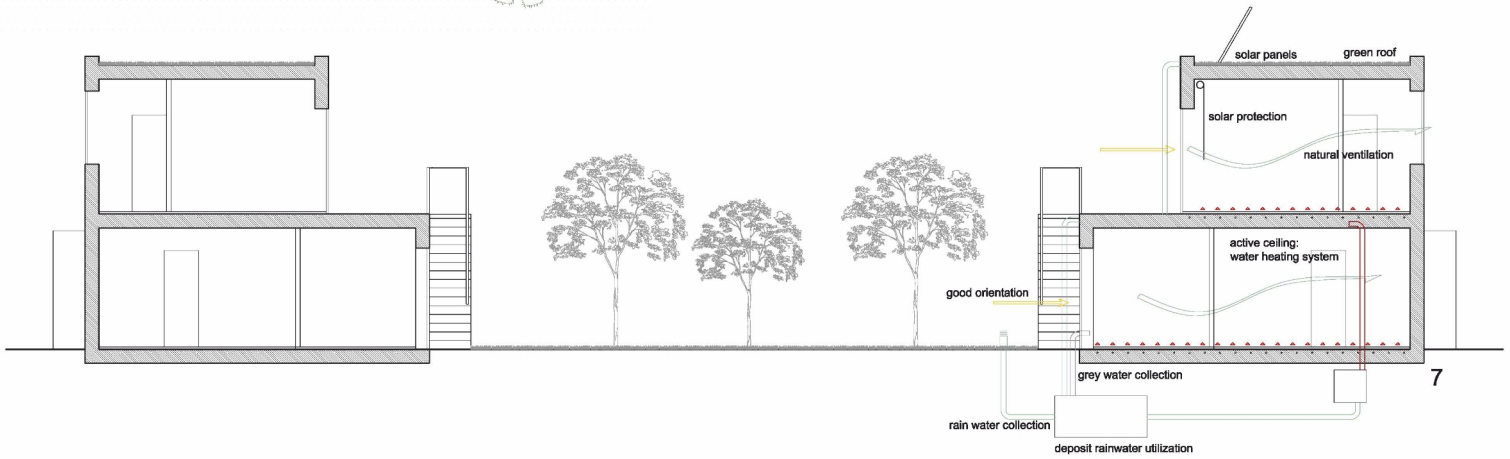


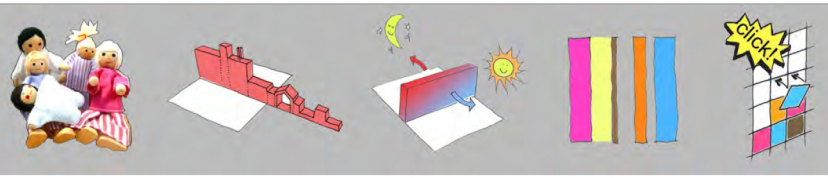
7

0 1 5

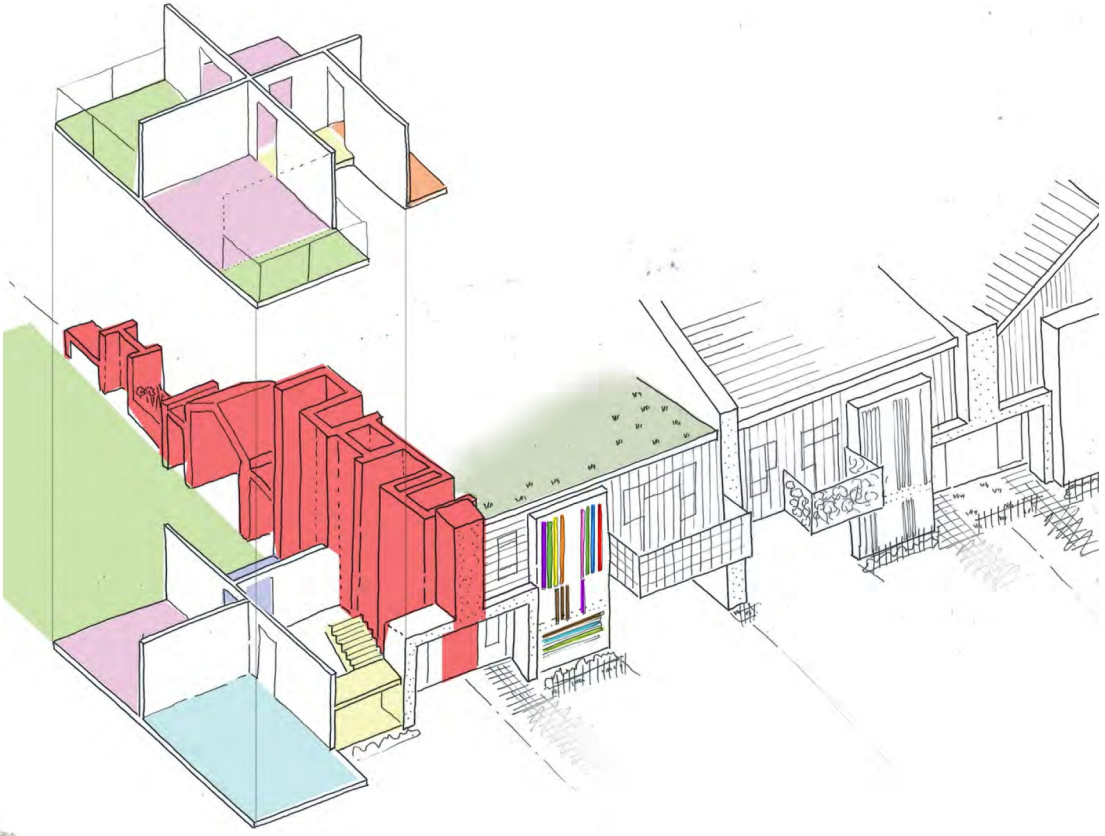
MEW HOUSE 1 86sqm

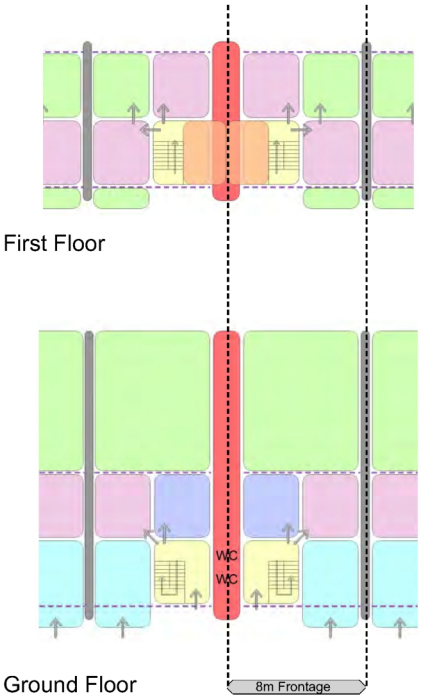
5. ground floor 1:100
6. first floor 1:100
7. section 1:100

House Type - Mews 2 Bed

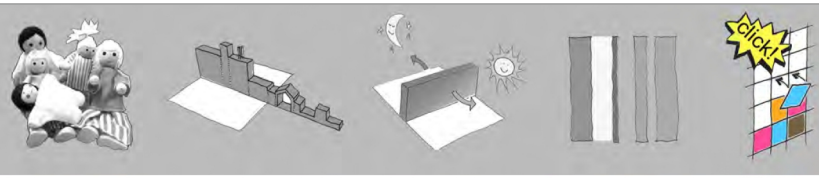


- Adaptable facade
- Shared boundary wall
- Flexible room
- Circulation core
- Exterior space
- Kitchen
- Family bathroom
- Car port
- Dividing wall



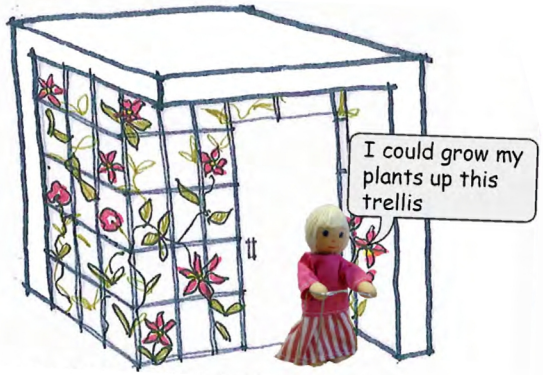


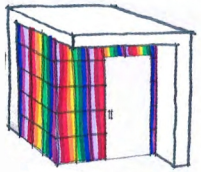
Adaptable Façade - The ‘Click’ System

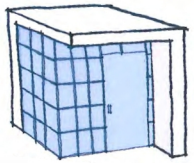


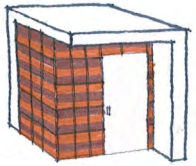
No two people are alike so why should our houses be?
Cambridge is an individual city; even rows of seemingly the same houses are full of individual touches made by past and current residents. One of the great treasures of Cambridge is the variety of its buildings so why should the new always be the same? Why can’t it change over time?

Our houses all include the ‘click system’ the look of balconies, garden walls, porches even whole elevations can be changed by residents by hand when and how they want.
Timber panels can be replaced with ceramic panels, trellis, fabric or metal, in much the same way that users can change the look of their mobile phones by changing covers and cases.



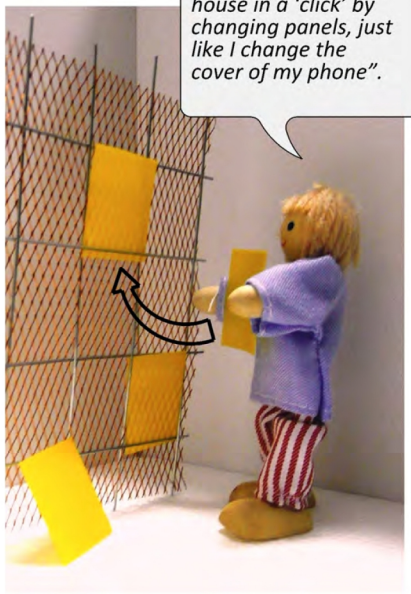






Timmy Jones, Resident

“I can change the look of my balcony, garden wall or whole house in a ‘click’ by changing panels, just like I change the cover of my phone”.



Tom Reynolds (Pollard Thomas Edwards)

STUDIO MEWS

The project re-imagines the mews as a housetype that combines industry and living and envisages the mews streets as the creative heartbeat of Wing.

The Studio Mews have two frontages: A two storey Cambridge brick facade that overlooks the street and a light, contemporary facade that leads onto the communal yard. The scale and feel of the street and yard spaces takes precedent from similar streets in the city, like Portugal Place. The street and yard are distinct in that the street is predominantly for pedestrians and cyclists, while from the yard residents can access car parking.

Craft fairs and exhibitions can take place in these spaces and it is even hoped that some entrepreneurial residents may choose to open shops to sell their art/crafts or a small cafe to talk about them. Along with the design, these events will help to establish a creative community of artists, sculptures and craftsmen.

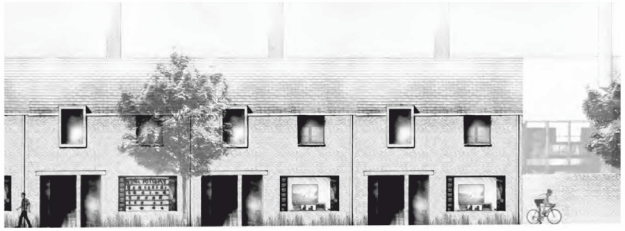
Between the street and the yard, the Studio Mews is a dynamic house of light, modern interiors that lead onto courtyards, creating indoor/outdoor rooms for creativity and living. Each house is marked by a projecting porch that leads into an open plan living and dining area, part of which is double height. Kitchen, bathroom and storage areas are grouped to maximise the openness of the living areas and allow for efficient servicing. The first floor is accessed via the stair study that overlooks the courtyard gardens. The first floor comprises two double bedrooms, a bathroom and a small balcony.

The Studio Mews appearance is a contemporary interpretation of the Cambridge Mews vernacular. On the street facade openings are varied and evoke traditional proportions, while the yard elevation is more open to create light, vibrant interiors. A locally sourced gault brick is proposed, which features both inside and out. Chimneys are used to define a dynamic roofscape.

The design will employ a fabric first approach with enhanced insulation and air tightness. The chimney can be used as part of the ventilation strategy, while the floating fen garden becomes a site for biodiversity and rainwater storage.

The Studio Mews is a design inspired by the 21C lifestyle of live-work and projects a creative future for the Mews streets of Wing.

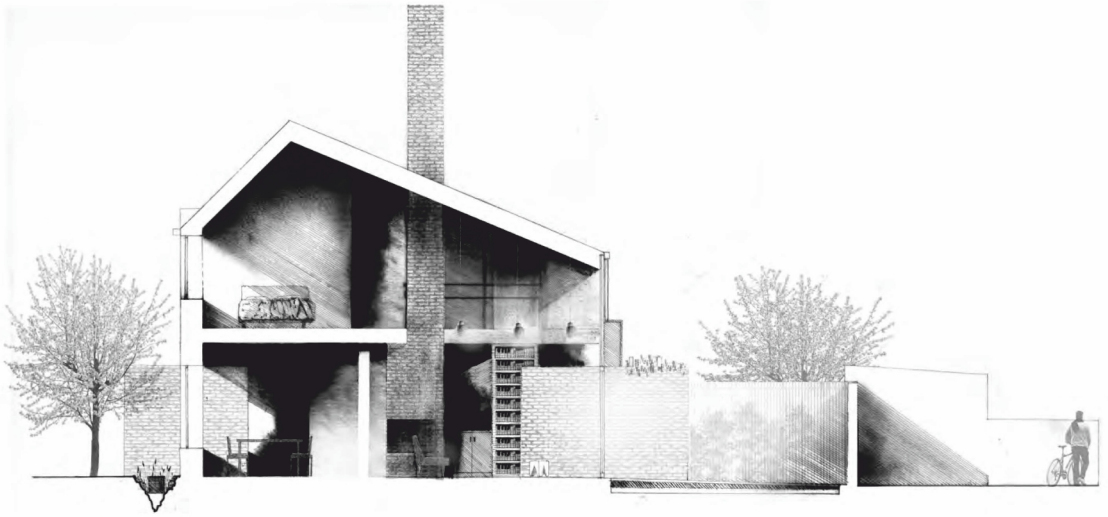
The Creative Heartbeat of Wing - indoor/outdoor rooms for modern living and creative work



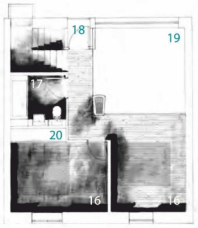
A contemporary Cambridge mews; an interpretation of the past

Carving in the Courtyard; spaces for creating and for living

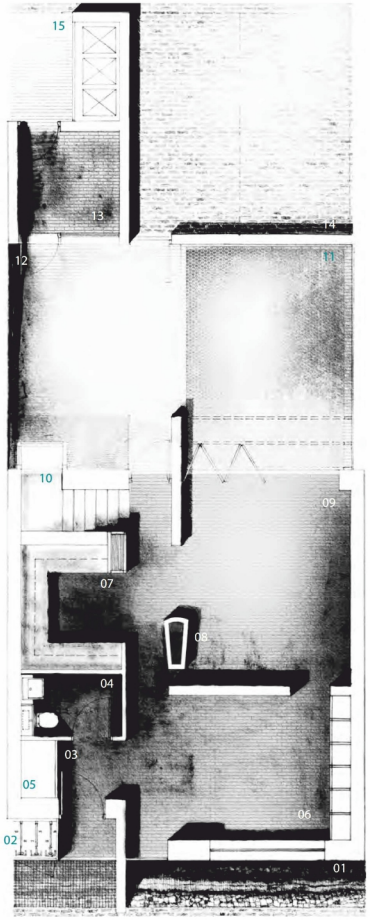
Mews Yard Craft Fair; the monthly exhibition and market



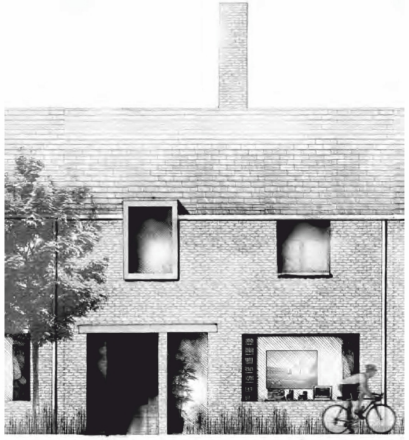
Section Drawing Scale: 1:100



First Floor Plan NTS



Ground Floor Plan Scale: 1:100



Mews Street Elevation Scale: 1:100

Yard Elevation Scale: 1:100

DRAWING KEY

01 Mews Dyke (SUDS)
02 Bike store
03 Lobby
04 WC/Shower Room
05 Store
06 Dining Room
07 Kitchen
08 Chimney/Air duct
09 Living room
10 Study
11 Floating Fen garden (rainwater store)
12 Courtyard garden
13 Worshop
14 Parking (2 no. spaces)
15 Bin store
16 Double bedroom
17 Bathroom
18 Balcony
19 Void
20 Wardrobe

Mews Houses (House type 1)

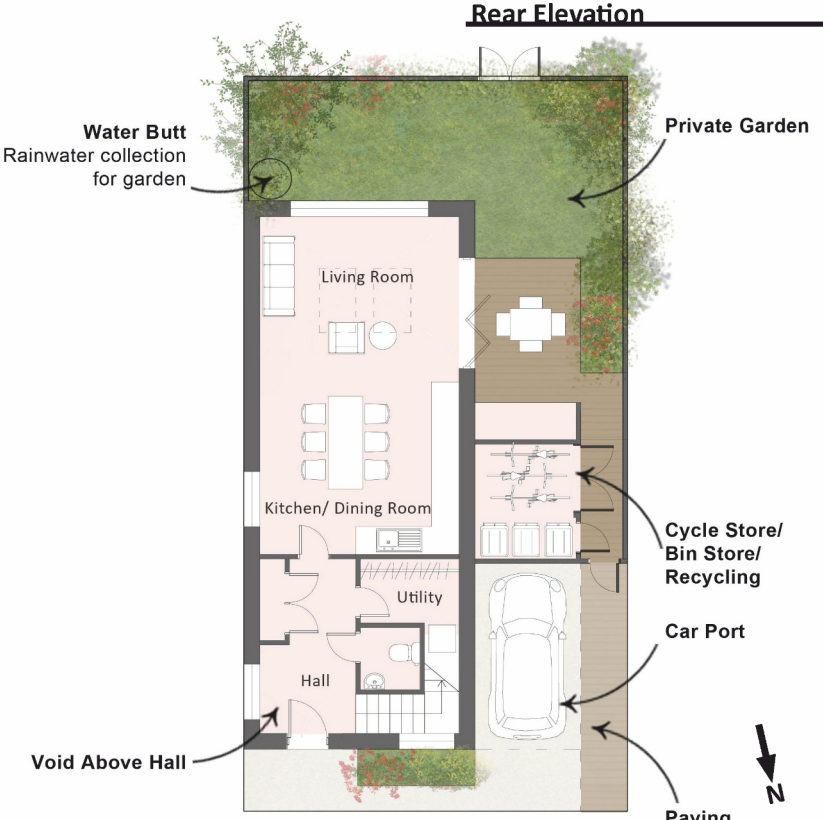
Rear Elevation

House Type 1
Ground Floor area: 48.7sqm
First Floor area: 38.3 sqm
Floor Area: 87.0 sqm

Services
- Renewable energy supply for low temp underfloor heating.
- Good day lighting, low energy lighting LEDs.
- AAA rated appliances in kitchen/ utility.
- Drainage to water butt then SUDS.

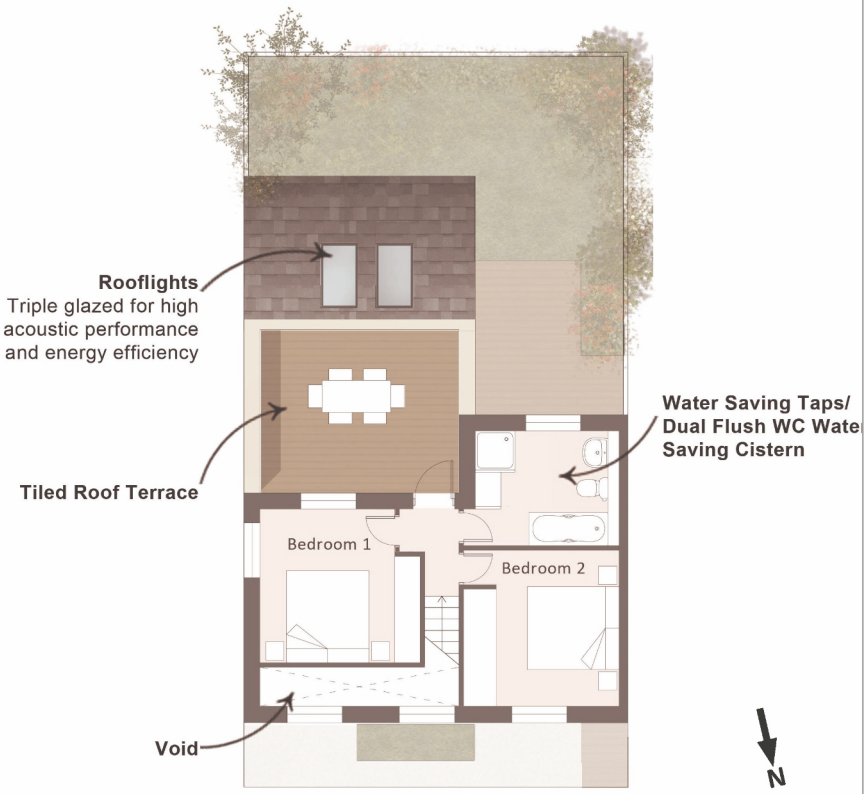
Fabric First
- CLT (Cross Laminated Timber).
- Insulation: hygroscopic sheeps wool (British source) 25% > 2010 B.Regs
- Airtight layer OSB and fibre board insulation NBT

Renewables
- Assume site CHP or bank of solar panels/PV panels.
- South facing roof could incorporate

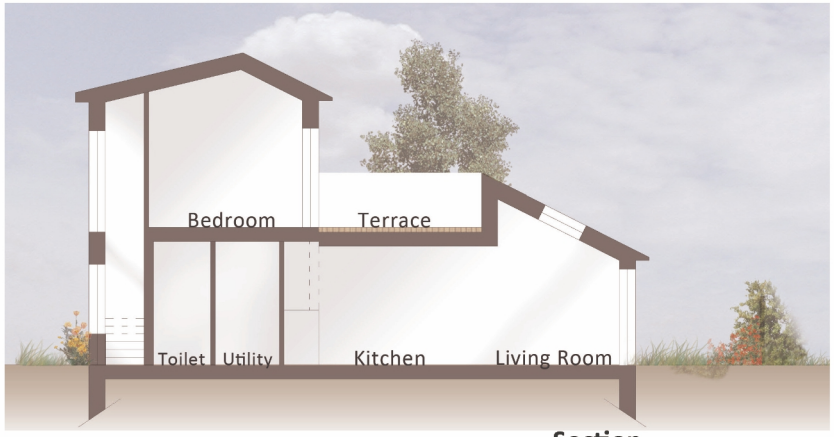


Ground Floor Plan

Perspective



First Floor Plan



Section

Front Elevation

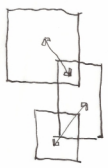
1_SMALL MEWS HOUSE

The aim of our proposal is to foster a sense of community through the direct interaction between neighbours within a network of growing and working spaces.

Balconies, terraces, and pop-out windows encourage a relationship with exterior spaces.

Internally, rooms overlap, simultaneously connecting the activities of family members throughout the day creating a generous home flooded with daylight.

vertical overlapping / shared light and interaction



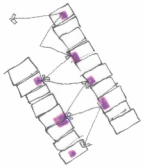
horizontal overlapping / shared spaces and interaction

1_MEWS HOUSE

SECTIONAL AXONOMETRIC *showing types of growing spaces (green), possible work spaces (purple) and interactions*

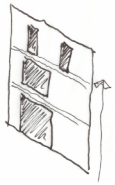
Encouraging a sense of community through shared and overlapping spaces...

... in a network of growing spaces in and around dwellings

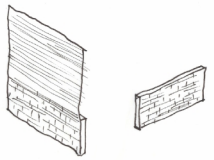


... as well as shared work spaces within homes

... whilst still making references to the unique Cambridge context...



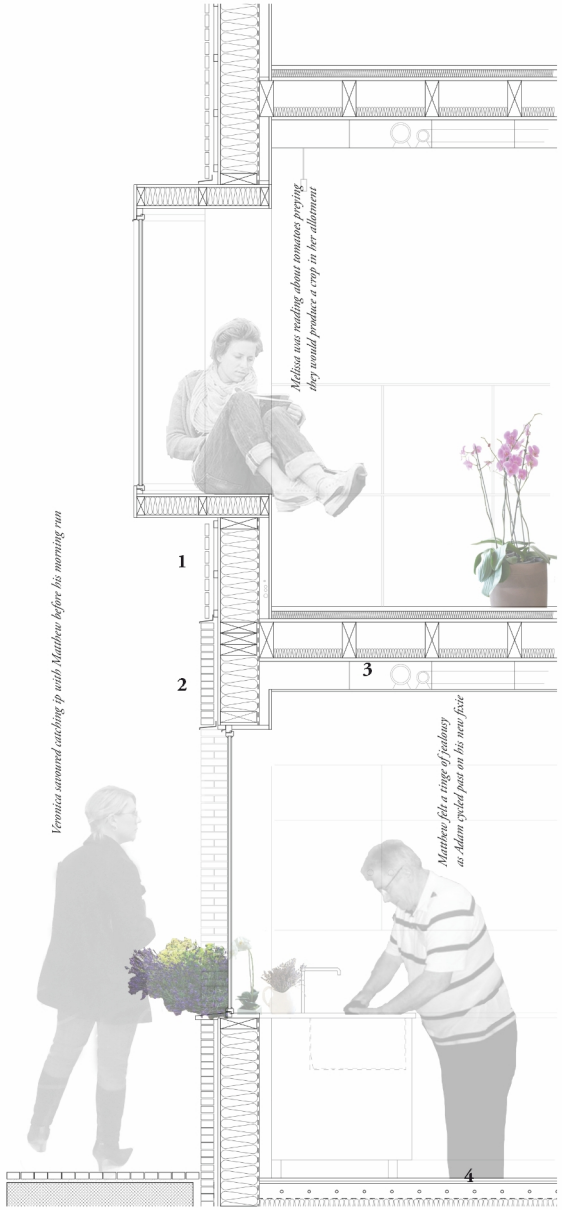
... through a pronounced hierarchy of floors and fenestration



... and a sensitive and grace-fully aging material palette

ELEVATION 1:25

DESIGN + INHABITATION



DETAIL SECTION 1:25

The building system utilises prefabricated, modular timber construction which keeps costs low.

1 / Highly insulated walls (u value = 0.2) + triple glazed, low-e windows in line with code level 4 .

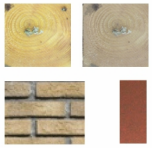
2 / Walls clad in brick sourced locally from lower Oxford Clay, as well as horizontal Douglas Fir strips, grown in the UK.

These are sustainable material sources. Copper highlights are used on some window boxes to give variation and character to the facade.

The timber will weather gradually to turn into a similar colour to match the bricks, and the copper will darken.

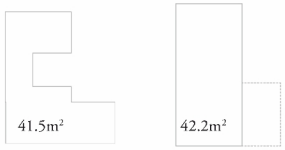
3 / Suspended ceilings to provide space for mechanical ventilation in all rooms in line with code level 4.

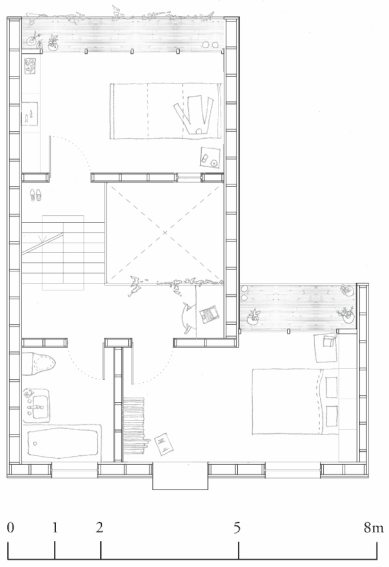
4 / Concrete ground floor slab for thermal mass (utilising solar gains that are gained by large glazing on the ground floor) and underfloor heating.



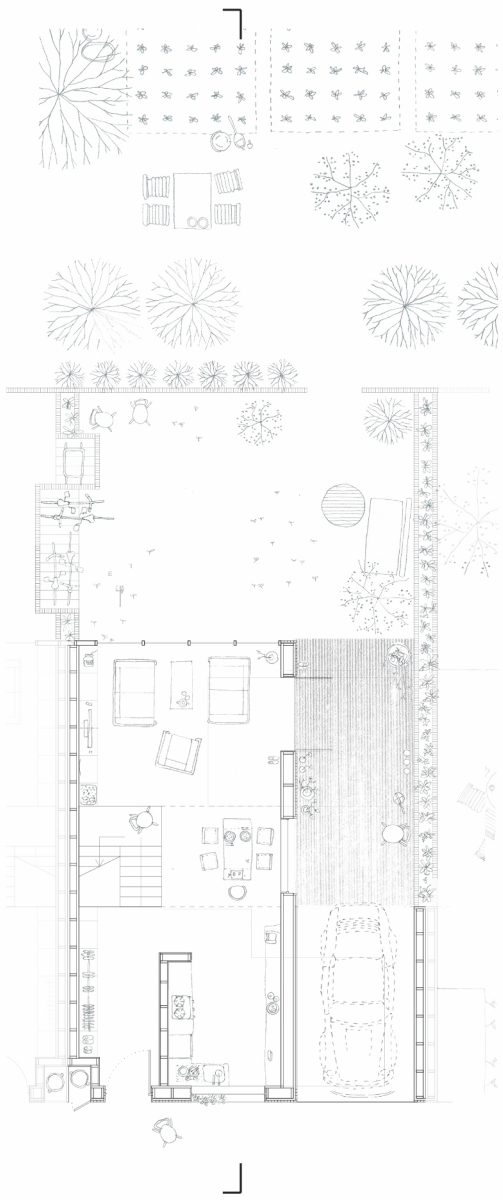
/ The GIA is 83.7m², which is at the minimum required for this typology.
/ However, the open plan ground floor, split-level first floor and void in the centre of the plan makes the space feel larger and lighter. Small balconies for each bedroom provide more light and space for growing plants.
/ A small back garden - plots are divided by double-layered brick walls in which planting space is shared with neighbours - opens out onto shared allotments and bbq spaces.
/ A built-in garage on the ground floor removes the presence of cars from the street. Through this, the street becomes a shared space, open to community activities and play.

The implied limitation placed on car ownership questions the need for multiple car ownership and encourages alternative means of transport, such as cycling.





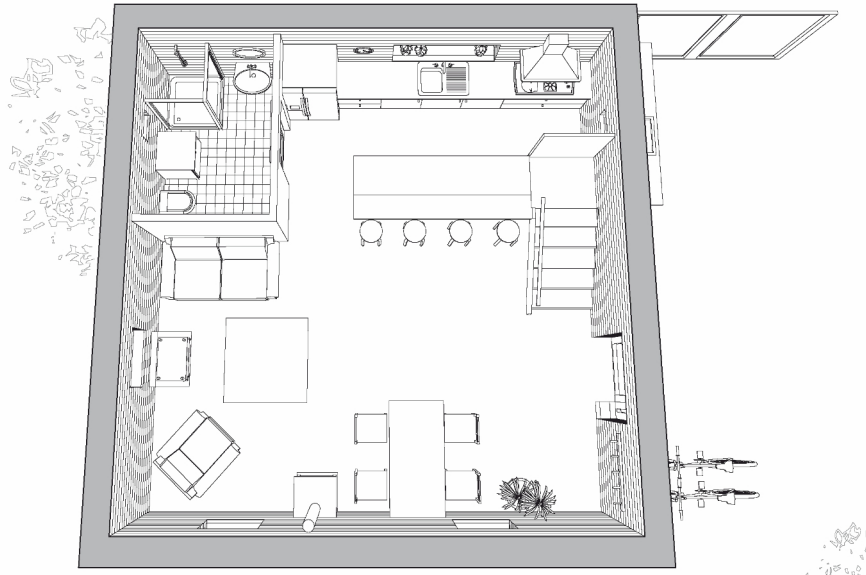
FIRST FLOOR 1:100



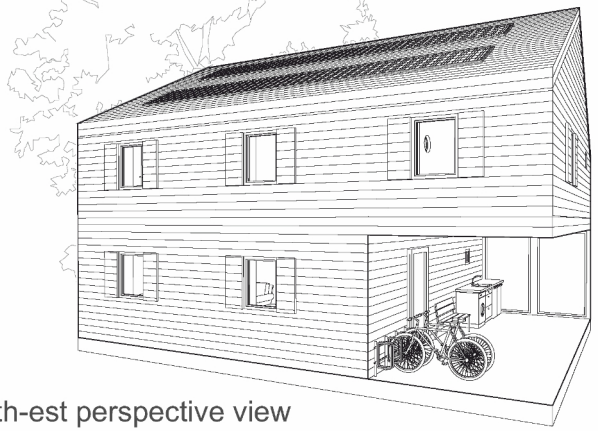
GROUND FLOOR 1:100

1_MEWS HOUSE

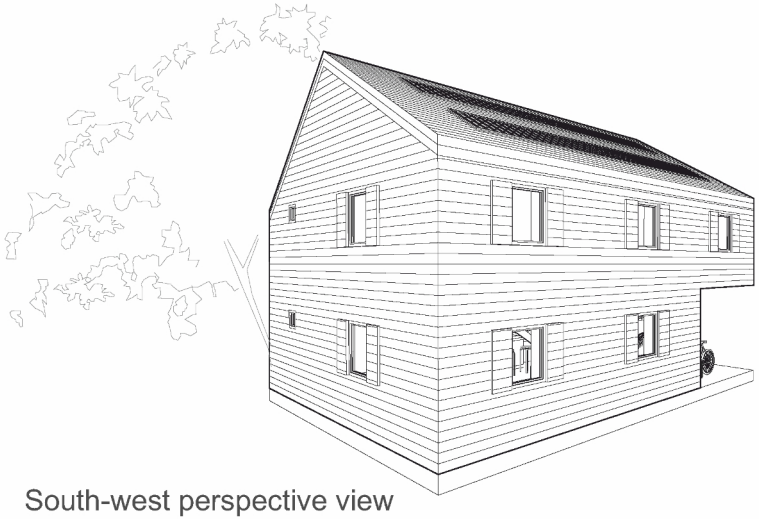
Mews House: 2 bedroom, 2 storey, 83-87,5 sqm GIA



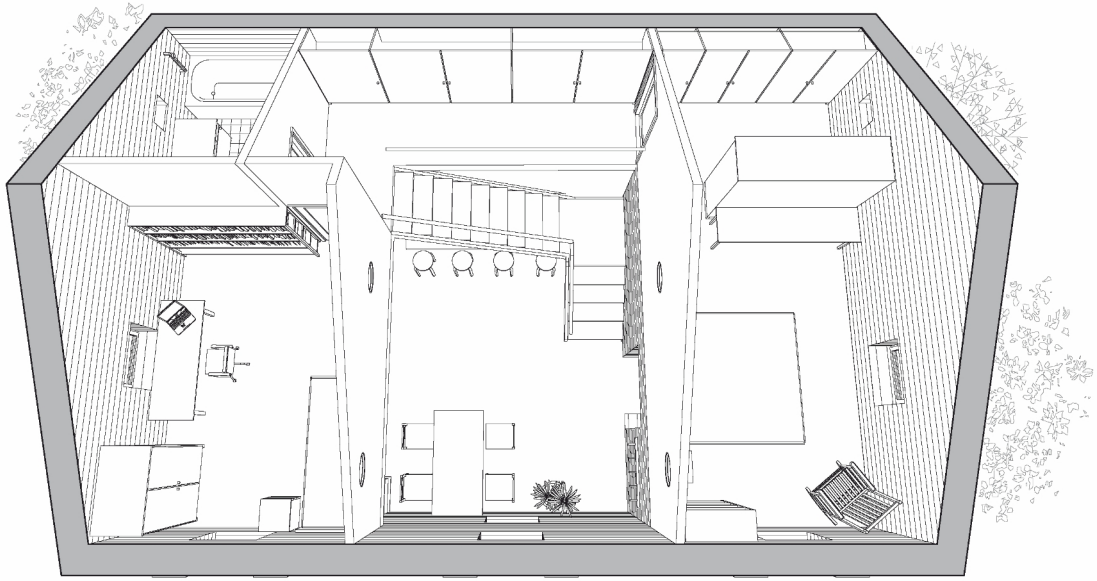
Ground floor horizontal section perspective



South-est perspective view

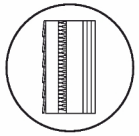


South-west perspective view

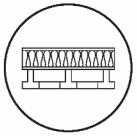


First floor horizontal section perspective

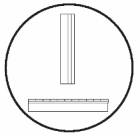
ROOF
Wood tiles, timber-trussed rafters and joists with insulation, roofing underlay, counterbattens, battens and concrete interlocking tiles



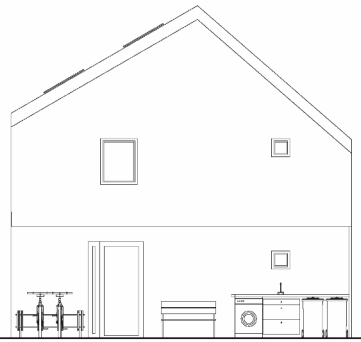
EXTERNAL WALLS
Solid wood, fair-face solid blockwork outer leaf, insulation, timber frame, vapour control layer, plasterboard on battens, paint



GROUND FLOORS
Structural topping on beam and extruded polystyrene (HFC blown) block flooring

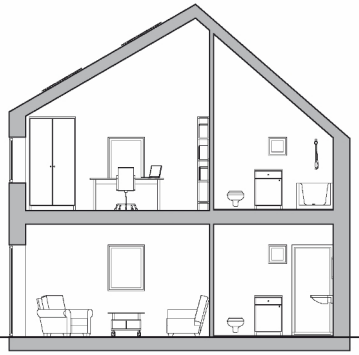


INTERNAL WALLS
Aircrete blockwork with plaster, paint
UPPER FLOORS
Chipboard decking on timber joists

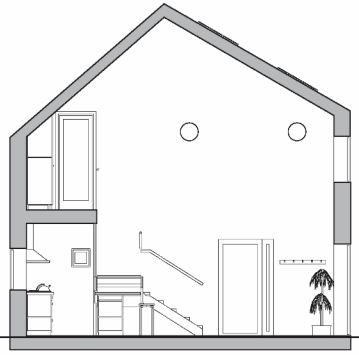


El. A

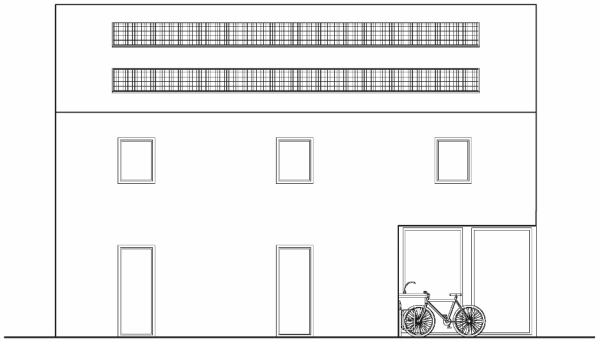
Sec. B



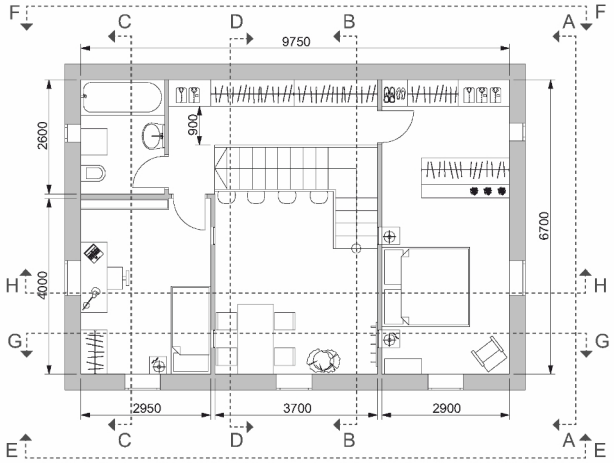
Sec. C

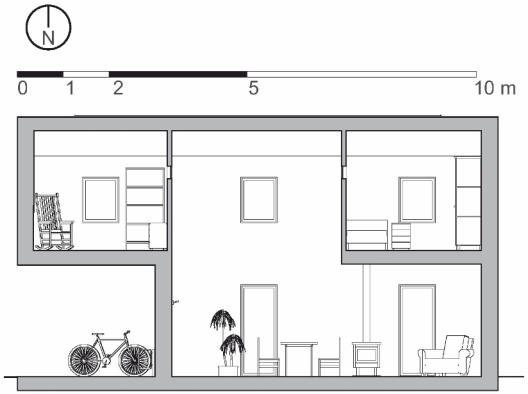


Sec. D

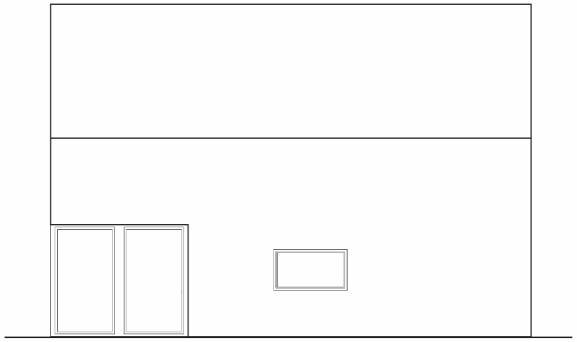


El. E

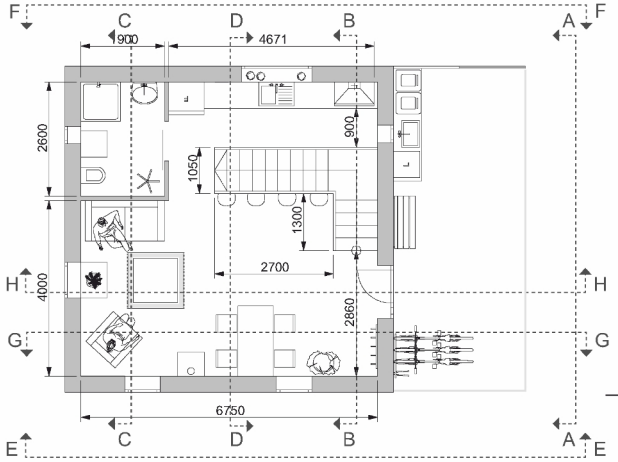


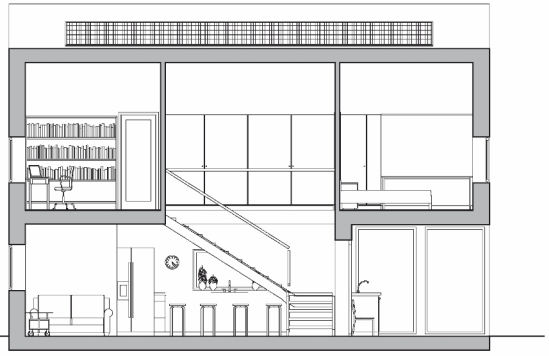


Sec. G



El. F





Sec. H

DraWing Winners

The opportunity to design a house on Wing attracted a diverse group of entrants from as far afield as Australia, Argentina, North America and Italy. It was this varied demographic which produced 62 entries, all interpreting the brief in an original and innovative way. Being 'of Cambridge' was a fundamental criteria for success and a vast majority of the entrants had a strong connection to the city.

The exhibition and prize giving reception became much more than just an opportunity to reward the very best of designs. Over 100 people attended and displayed great enthusiasm towards the patchwork-like nature of the different entries, and there was a genuine sense of professional admiration amongst the thoughtful discussion. Everyone who submitted an entry, from student to established practice, enjoyed a platform to showcase their ideas to Marshall, the architectural community and the public.

Organising a tender process which actually encouraged architects to design instead of completing arduous forms was very well received. Perhaps such a mutually enjoyable approach will become the standard in the future.

There were 16 winning entries across the six categories, selected during an afternoon of careful deliberation by the judging panel. One-off DraWing trophies and cash prizes were presented to winners, recognising them as the best in a high quality collection of submissions.

Metro Studio UK

Freeland Rees Roberts & Sarah Wigglesworth Architects

Mole Architects, Sarah Wigglesworth Architects and PTE

Hayson Ward Miller and Fielden & Mawson

Studio 24 Architects

Metro Studio UK

Mole Architects

Freeland Rees Roberts

Fielden & Mawson

Sarah Wigglesworth Architects

CATEGORY	PRIZE	NAMES	No.
Mews House 2 Bedroom	Gold	**Tom Reynolds** Pollard Thomas Edwards www.tomreynolds.eu www.ptea.co.uk	59
	Silver	**DPA Architects & CHS Group** www.dpaarchitects.co.uk www.chsgroup.org.uk	54
	Bronze	**Freeland Rees Roberts** www.frrarchitects.co.uk	60
Mews House 3 Bedroom	Gold	**Metro Studio UK** www.metrostudiouk.com	53
	Silver	**Toshiya Kogawa** www.haworthtompkins.com	51
Town House 3 Bedroom	Gold	**Sarah Wigglesworth Architects** www.swarch.co.uk	40
	Silver	**Freeland Rees Roberts** www.frrarchitects.co.uk	36
	Bronze	**DPA Architects & CHS Group** www.dpaarchitects.co.uk www.chsgroup.org.uk	31
Semi Detached 3 Bedroom	Gold	**Richard Carter** Pollard Thomas Edwards www.ptea.co.uk	19
	Silver	**Sarah Wigglesworth Architects** www.swarch.co.uk	28
	Bronze	**Mole Architects** www.molearchitects.co.uk	26
Semi Detached 4 Bedroom	Gold	**Feilden & Mawson** www.feildenandmawson.com	13
	Silver	**Haysom Ward Miller** www.haysomwardmiller.co.uk	18
Large Detached House	Gold	**Sarah Wigglesworth Architects** www.swarch.co.uk	8
	Silver	**Mark Richards** Studio 24 Architects www.studio24architects.com	9
Public Choice Award		**Andrew Drummond** RH Partnership www.rhpartnership.co.uk	3

16
15

7

16
17

14
13

59
60

TYPE 3 - TOWN HOUSE
TYPE 3 - TOWN HOUSE

Architectural
DESIGN
COMPETITION
2013
3rd Prize
1st P

40
41
Courtyard
House

51

Courtyard
House
the townhouse set around a
secluded private courtyard

12

Wing

19

16
15
14
CLONE ZONE
HOME ZONE

Adaptable
Villa
the smart Cambridge home that
adapts as your family grows

29
28

DETACHED HOUSE:
3 BEDROOM

Next Steps

The outline planning application for Wing was submitted to the local authorities in December 2013 and is currently the subject of consultation. As the site sits within two local authority jurisdictions, the proposal must be considered by both a Planning and a Joint Development Control Committee comprising City, South Cambridgeshire and County officers. If this application is approved, work will then begin on the detailed planning phase of the project. This will build upon the initial application, agreeing a number of reserved matters with the local authorities specifying how elements on Wing will be delivered.

The detailed aspects of the scheme's aesthetics will be governed by a design code which will outline guidance on the materials to be used and the appearance of the buildings. Marshall will work collectively with consultants and the local authorities to create this code, drawing upon concepts and ideas introduced by DraWing. The creation of a strong design code will be essential, as it will be the most important tool in ensuring the development is cohesive and adheres to the Marshall values which are integral to the project.

Physical work on site will continue with a more detailed archaeological survey in the next few years.

Pre-planning archaeological investigations indentified an enclosure system dating from the late Iron Age period. Further trenching will examine in detail 11 early Roman kilns, evidence of timber-built structures and associated industrial and settlement related features, such as pits and postholes.

Following this, the site's strategic infrastructure will be introduced, transforming parts of Newmarket Road into a tree lined boulevard and facilitating utilities. Once the framework for the site is laid, land parcels will be developed focusing on delivering homes as well as the community facilities that create a sense of place for residents.

The long term nature of Wing's delivery means that the established concepts of design will undoubtedly progress and evolve. To mitigate this we intend to run design competitions bi-ennially to reflect emerging trends and maintain a cutting edge.

Finishing Words

The success of this competition shows that it is possible for a commercial business to be successful whilst maintaining a strong interest in the community through stewardship and continuous engagement.

This book provides a snapshot of the Wing development in its early stages. Marshall would like to say “Thank you” to all the people, without whom DraWing would not have been possible. Our thoughts now look forward to the exciting future for Wing.

Appendix - List of Competitors

1	Mole Architects	http://www.molearchitects.co.uk/
2	Andrew Armes & David Williams	http://www.architectureaa.com/
3	Andrew Drummond (RH Partnership)	http://www.rhpartnership.co.uk/
4	PGABOR Associates	http://www.pgaborassociates.com/
5	Archipelago Architects	http://www.archipelago-architects.co.uk/
6	Christian Tattoli	http://www.archilovers.com/christian-tattoli/
7	Once Architecture	http://www.oncearchitecture.co.uk/
8	Sarah Wigglesworth Architects	http://swarchitects.org/
9	Studio 24 Architects	www.studio24architects.com
10	Mart Barrass Architect	http://martbarrass.com/
11	Saunders Boston	http://www.saundersboston.com/
12	Archipelago Architects	http://www.archipelago-architects.co.uk/
13	Feilden & Mawson	http://www.feildenandmawson.com/
14	Margherita Cesca	http://www.mcmmarchitettura.com/
15	Fabrizio Colmegna & Giuseppe Vilardi	uk.linkedin.com/pub/fabrizio-colmegna/45/a9a/15/en
16	Tiziana Mori & Andrew Henderson	www.linkedin.com/pub/tiziana-mori/5/a07/ab
17	Mart Barass Architect	http://martbarrass.com/
18	Haysom Ward Miller	http://www.haysomwardmiller.co.uk/
19	Richard Carter (Pollard Thomas Edwards)	http://www.ptea.co.uk/
20	Charlotte Wrigglesworth	-
21	HLM Architects	http://www.hlmarchitects.com/
22	Once Architecture	http://www.oncearchitecture.co.uk/
23	Ashley Courtney	http://www.ashleycourtney.co.uk/
24	Archipelago Architects	http://www.archipelago-architects.co.uk/
25	Studio HG	http://www.studio-hg.com/
26	Mole Architects	http://www.molearchitects.co.uk/
27	Saunders Boston	http://www.saundersboston.com/
28	Sarah Wigglesworth Architects	http://swarchitects.org/
29	Mart Barrass Architect	http://martbarrass.com/
30	MWSOGL	http://mwsogl.com
31	DPA Architects & CHS	http://www.dpaarchitects.co.uk/ http://www.chsgroup.org.uk/
32	Mart Barrass Architect	http://martbarrass.com/
33	Mole Architects	http://www.molearchitects.co.uk/
34	Haysom Ward Miller	http://www.haysomwardmiller.co.uk/
35	HLM Architects	http://www.hlmarchitects.com/
36	Freeland Rees Roberts	http://www.frrarchitects.co.uk/
37	Glen Howells Architects	http://www.glennhowells.co.uk/content/home/
38	Emulsion Architecture	http://www.emulsionarchitecture.com/
39	Ingleton Wood	http://www.ingletonwood.co.uk/
40	Sarah Wigglesworth Architects	http://swarchitects.org/
41	Archipelago Architects	http://www.archipelago-architects.co.uk/
42	Saunders Boston	http://www.saundersboston.com/
43	Atelier Architecture	http://www.atelier-architects.co.uk/
44	MWSOGL	http://mwsogl.com/about/
45	Peter Karl Becher	http://www.studiobecher.com/
46	DPA Architects & CHS	http://www.dpaarchitects.co.uk/ http://www.chsgroup.org.uk/
47	Saunders Boston	http://www.saundersboston.com/
48	Michaela Barosio & Ottavia Parisi	-

49	Archipelago Architects	http://www.archipelago-architects.co.uk/
50	Mart Barass Architect	http://martbarrass.com/
51	Toshiya Kogawa	uk.linkedin.com/pub/toshiya-kogawa/36/712/182
52	Kate Ryle & Patrick Nelson	http://www.kateryle.com/
53	Metro Studio UK	http://www.metrostudiouk.com/
54	DPA Architects & CHS	http://www.dpaarchitects.co.uk/ http://www.chsgroup.org.uk/
55	Jianna Jiyeon Lee	-
56	Mart Barass Architect	http://martbarrass.com/
57	Archipelago Architects	http://www.archipelago-architects.co.uk/
58	Saunders Boston	http://www.saundersboston.com/
59	Tom Reynolds (Pollard Thomas Edwards)	http://www.ptea.co.uk/
60	Freeland Rees Roberts	http://www.frrarchitects.co.uk/
61	MWSOGL	http://mwsogl.com/about/
62	Clemente Sanfelice di Monteforte	-

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